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ESSAYS, MONOGRAPHS, AND CASES.

Annual Address delivered before the Chicago Academy of Medical Sciences, December, 1860. By M. O. Heydock, M.D.

It has been urged against the Science of Medicine by many who are prone to take a superficial view of things, to judge by results alone, smoke and noise, rather than the means by which ends are accomplished, that as a science it is not progressive; that while the present century has been fruitful beyond all precedent in extending the domains of knowledge through all the avenues previously opened, medicine alone follows a beaten track; that in the application of remedies for the alleviation of "the ills which flesh is heir to," we are not far advanced beyond the times of Sydenham, not to go further back; that the discoveries in which we glory, and which encourage us, are not deductions from the experience and knowledge of by-gone centuries, but fortunate revelations oftentimes made known to the illiterate, and by us seized and incorporated with many others of like origin, and which constitute the sum and essence of practical medicine.

That the history of medicine furnishes a few facts in support of this latter statement, we do not deny; and yet something as trivial unlocked the mystery of gravitation to Newton, and has given man many of the forces and combinations by which he overcomes the laws which govern matter, and makes them subservient to his will and

comfort; but that half a century finds us at its close what we were when it dawned upon us, is most untrue, and I need only cite in support of our claims to growth and advancement two or three discoveries which have contributed as much to the happiness of our race as any since time began. It is hardly extravagant to say, that vaccination has saved to the century a generation. Percussion and auscultation go hand in hand with the divine revelation of Harvey, and ether and chloroform, better "than poppy or mandragora, or all the drowsy syrups of this world," steep the senses in forgetfulness to the untold horrors and agonies which are associated with the operator's table. It is true that the same advance has not been made in our materia medica and the successful application of remedies for the removal of disease, as in our knowledge of what constitutes the disease; but in pathology and physiology, in diagnosis and prognosis, in etiology and public hygiene, we walk in confidence where our brothers of the last century groped their uncertain way. The researches of Bell and Hall have let in a flood of light upon the physiology of the nervous system. Auscultation and percussion reveal the hitherto hidden mysteries of the chest, and as its murmurs whisper to the ear, coming events cast their long shadows before; but with them we have the great advantages which physical signs give over the rational; if we cannot remove we may retard a disease in its incipiency, which, if undetected until the rational signs were fully developed, would pursue its relentless march, unchecked by all the resources of our art.

Close and careful analyses of the normal and abnormal condition of the blood have been made by Bernard, Andral, Simon, Bennett, and others, and the diseases characterized by changes in its constituents, more accurately pointed out, and indications of treatment suggested, of a constitutional character, where heretofore it had been addressed to an organ whose morbid condition had been considered as causative of the disease, rather than as an effect produced by an abnormal condition of the fluid itself.

But I need not recount one by one the splendid discoveries which have marked almost every year of the past sixty to prove that we are not the drones many would have the world believe. True, I have said that our remedies have not kept pace with our knowledge of disease, but this is no just cause for discouragement. In this direction we need the same patient, discriminating and exact research and investigation which have characterized our labors in other directions. We are too apt to prescribe remedies combined, rather than uncombined; true though it be that some of the best we have are happy combina-

tions, yet simplicity in prescription is the only method by which we can winnow the chaff from the wheat, or give therapeutics its true place, which is the first place in our art. If members of our medical societies would, during a year, study the properties of one or two remedies, free of prejudice for or against, and merely note effects produced by their administration with little variation in a reasonable number of cases, allowances being made for idiosyncrasies and conditions of the system, and, at the end of the year, a report made of this experience, how great would be the benefit conferred upon the profession at large!

New remedies, or some new application of the old, are suggested every day, but if of real value, the profession are slow to adopt them. Chlorate of potash, for instance, now universally used and recognized as one of the most reliable of all our remedies for certain diseases, has been an article of the materia medica for years, but its value unrecognized till recently. Veratrum viride in our Dispensatory of 1851 is just referred to as a sedative to the heart's action, but its emetic qualities are more dwelt upon, while it is now the most certain and reliable of all our arterial sedatives, digitalis and aconite not excepted.

These remarks have been suggested by the nature of the disease to which I would ask your attention this evening; one over which medicine has thus far seemed to exert little or no control.

Prof. J. Hughes Bennett, in October, 1845, published an account of a disease unrecognized by the profession before, to which he has given the name of Leucocythemia, or white cell-blood. "A morbid condition of the blood consisting of multitudes of colorless corpuscles, resembling those of pus, associated with hypertrophy of the spleen and liver, and presenting after death peculiar white coagula."

About the same time Virchow published an article confirmatory of these observations, but with the additional statement that a similar condition of the blood was associated with an enlargement of the lymphatic glands, without hypertrophy of the spleen.

In a case reported by Dr. Bennett, it appeared that the fibrin was increased to about double its amount in health; the albumen and salts existed in their normal proportions; the red globules were diminished to about one-half their normal amount, but this diminution was counterbalanced by an increase in the amount of water. Blood drawn from the arm of this patient gave the following results:

Fibrin 6 parts in a thousand, the proportion in health being from 2 to $3\frac{1}{2}$; average about $2\frac{1}{5}$, the serous solids being 72; the proportion in health being about the same, 72 to 88. Globules were 67;

the proportion being in health from 110 to 152; the average being for males, 141; for females, 127.

He says that when we subject a drop of this blood to the microscope, the red and white globules may be seen rolling confusedly together, the latter evidently in excess; after a time the colored bodies are aggregated together in rolls; leaving clear spaces between them, which are more or less crowded with the colorless ones.

These white corpuscles seem to vary in size; even in the same individual sometimes being a good deal larger than the red, then the same size, and even smaller. The organs most uniformly diseased are the spleen, liver, and lymphatic glands.

The spleen in the majority of cases was found enlarged, though this hypertrophy has been seen in many cases without this change in the blood; the texture of the organ varied in different cases. Next in frequency the liver has been found diseased; most generally merely hypertrophied.

The lymphatic glands are also frequently found enlarged; generally they are soft, yielding a copious turbid juice on pressure; though sometimes indurated from calcareous deposits, or from tubercular or cancerous exudation. This condition of the blood has been found associated with other lesions, as a cancerous affection of the thyroid body, and Addison's disease of supra-renal capsules.

That these organs play a prominent part in the generation of white corpuscles, seems to be pretty generally accepted, for the blood found in the splenic and portal veins, we are told, is richer in white corpussles than the systemic; and also that the colorless cells of the blood are the same as those of chyle and lymph, and are formed before entering that fluid.

Dr. Bennett, in his able summary, concludes, 1st. That the blood-corpuscles of vertebrate animals are formed in the lymphatic glandular system, and that the majority of them become colored upon joining the circulation.

2d. That in mammalia this system is composed of the spleen, thymus, thyroid, supra-renal, pituitary, pineal, and lymphatic glands.

3d. That in fishes, reptiles and birds, the colored corpuscles are nucleated cells originating in those glands; but in mammals they are free nuclei, sometimes derived as such from the glands, at others developed within colorless cells.

4th. That in certain hypertrophies of the lymphatic glands in man, cell elements are multiplied to an unusual extent, and under such circumstances find their way into the blood, and constitute an increase

in the number of its colorless cells. A corresponding diminution in the formation of free nuclei, and consequently of colored corpuscles, must also occur.

We have thus far been occupied with the disease, leucocythemia, to the pathology and treatment of which little has been added since Dr. Bennett's papers of 1852.

In the summer of 1859, Dr. Wilks, of Guy's Hospital, presented to the Pathological Society of London morbid specimens taken from a patient whose disease, though not very uncommon, had never received any distinct designation, or its pathology been specially investigated.

Its peculiar features were the extreme pallor of anæmia, enlargement of the various groups of lymphatic glands, either internal or external to the body, with occasional enlargement of the spleen. This disease he named "*Anæmia Lymphatica.*" In many respects it seems the analogue of the disease treated of by Dr. Bennett, and yet there seems to be a marked difference between the two. Leucocythemia is characterized by an *excess* of white corpuscles and fibrin, and there is no uniformity of pathological condition in respect to the texture of the glandular organs implicated; the spleen at one time being merely hypertrophied and of unusual density, again natural, and in yet another class of cases pulpy. The liver is found diseased; either hypertrophied, cirrhosed, or cancerous. The lymphatics either soft or indurated, yielding a turbid juice, or hard, from calcareous, cancerous, or tubercular deposit.

Anæmia lymphatica, on the contrary, shows no decided *increase* in white corpuscles, but rather a diminution in the red. I have seen no quantitative analysis of the blood in this disease, by which we can judge as to the amounts of fibrin or solids; but, reasoning from analogy, I think we should expect to find the former in excess. I find little reference made to any morbid condition of the liver here, while in leucocythemia, in thirteen cases out of fifteen examined, it was pronounced diseased. The most marked peculiarity which distinguishes this disease from the former is the uniformity with which the same adventitious tissue may be found in the spleen and lymphatics. These glands, when cut open, were found to contain a white, translucent, and tough structure, consisting of an albuminous or lardaceous matter, with a fibrous tissue; the other organs sometimes contain a small amount of the same deposit Tubercle, and a waxy or lardaceous matter, sometimes found, show how closely they are allied to these forms of degeneration.

The microscope shows that the main elements of these glands are alike; that they consist of delicate bodies, of a rounded form, and in size are a little larger than white corpuscles, with very delicate parietes and almost transparent contents, so that they are sometimes recognized with difficulty; nothing like a nucleus was visible when recent, though after immersion in spirits something like one would occasionally present itself. The colorless corpuscles in leucocythemia, according to Bennett, when treated by acetic acid, are found to contain a nucleus, and in this connection we may seek an explanation of the extreme pallor which is so peculiar to anæmia lymphatica. The blood, in cases somewhat similar, has been found to possess an acid reaction, and sometimes resembles pink-colored water. The glands of the lumbar region and groin are as uniformly enlarged as any, though those of the cervical region and such as accompany the aorta, also the mesenteric and bronchial, are very frequently found hypertrophied to such an extent as to form a bed or mould for the large vessels or nerves which may chance to be in their vicinity.

These glands, as I have said, present the same general appearance and character; externally they are of a lightish-yellow color, but upon section they are of a dark or bright red, and are easily broken down. Dr. Ogle says the various viscera are found greatly congested, but nothing more, and that in no case has softening or suppuration taken place. In several cases reported a milky fluid has been found in the pleural cavities, and in one an excess in the pericardium.

As to its etiology little seems to be known, further than that it does not seem to be associated with or be caused by inflammation or malaria; some profound lesion of the blood-making organs has destroyed the complex and harmonious affinities which exist in health, as subtle as that which characterizes tubercle or fatty degenerations. The symptoms in many respects are analogous to those of simple anæmia, such as we find arising from profuse hæmorrhages and wasting discharges. Like all diseases characterized by molecular change or faulty development, its approach is usually gradual, and extending over a period of months or years; yet cases are reported where the disease has run its course in two months. Most frequently an enlargement of the left hypochondrium will be first observed, which may or may not be accompanied with pain; subsequent to which the lymphatics of the groin, axilla or cervical region become enlarged, and like changes seem to be going on within the body.

This hypertrophy of the spleen is not *always* present, nor the first manifestation noticed, as it may not be perceived until after that of

the lymphatics; and in some cases there seems to be a general enlargement of the abdomen, rather than the splenic region alone. Dr. Wilks observes, "that the uniformity which characterizes the symptoms during life, and the appearances after death, is too marked to constitute merely a coincidence of disease between the glands and the spleen, and that therefore there is without doubt a peculiar form of affection involving these organs, accompanied by an anæmic cachexia, prostration, and death."

Anæmic murmurs are sometimes found, when the ear is applied to the region of the heart and the aorta.

The discharges from the bowels are clay-colored, scanty and exceedingly offensive, having the odor of decomposition almost from the moment of being voided.

The appetite, in the only case which has come under my own observation, was good until near the close of life.

The urine in the cases I have seen reported has been pronounced normal; in the case I saw, I found, upon several analyses, an excess of purpurine, which we are told by Bird is almost always connected with some functional or organic mischief of the liver and spleen, or some other organ connected with the portal circulation, and that its intensity is in relation with the magnitude of the existing disease.

As to prognosis, the experience thus far recorded gives nothing favorable as the result of treatment; with a single exception, when the patient is reported as leaving the hospital "somewhat improved;" every case has resulted fatally.

The following case came under my observation and treatment in 1858 and '9, the first of the kind I had seen. I consulted our standard books of reference, but they seemed to throw little light upon the subject; though the cases recorded by Dr. Bennett in his paper upon Leucocythemia in many respects tallied very closely with this, yet they differed in many particulars. But in the papers by Drs. Ogle, Wilks, and others, I found portrayed a disease whose features were strikingly like those exhibited in the case to which I have referred.

I was called in February, 1858, to see Mrs. ——, a lady about twenty-eight years of age, of a slight figure, fair hair and blue eyes; had been married about ten years, borne no children, and until recently, enjoyed good, though not robust, health. For some little time past she had been drooping, without any apparent cause. I found her complaining of pain in the right groin; frequent desire to micturate; menses scanty, and almost colorless; abdomen tympanitic; dejections small, pasty, greenish, and exceedingly offensive; pulse small, and

rather quick; appetite good; general appearance decidedly anæmic. I prescribed for her ferruginous tonics, ale, porter, and a generous diet, which constituted, in the main, the treatment for some three months, her appetite remaining good, and her allowance of food equal to that of a person in good health; yet the anæmia became more and more marked each month, and her strength gradually failed. Finding little benefit from treatment, I advised, in July, that she should travel, and before returning, visit the sea-side. After some three or four weeks' absence, she returned, the pallor observedly increased, and in no respect was she benefited by her journey.

She now complained of a stiffness of the joints of both upper and lower extremities, which, at the first glance, seemed of a rheumatic character; but upon examination the joints were found to be unaffected, and the stiffness had its origin in some painful affection of the muscles themselves. This condition of things continued some little time, uninfluenced by the use of iodide of potash and like remedies internally, and many external applications. It seemed like some low grade of inflammation, being tender upon pressure, and slightly swollen.

About the first of October, subcutaneous swellings about the size of a very small bean were observed over and in the neighborhood of these muscles; these were painful, of a dark-bluish color, and seemed to follow a chain of glands down the arm, as we have seen them run from a punctured finger or dissection wound. The pulse was 112 per minute; the tongue had a whitish coat, and the tympanitis was much increased, and attended with considerable pain.

During November I used externally tinct. iodine, with cod-liver oil in whiskey internally, three times a day. Under this treatment the swellings of the upper extremities diminished somewhat in size and number, though the soreness of the muscles in a great measure remained. I now found glandular enlargements in the groin, and a good deal of tenderness along the track of the femoral artery and its distributions, and a hardness like that which characterizes the vein in phlegmasia dolens. The leg was swollen, and, like the rest of the body, white and colorless as alabaster.

She was sensibly failing each week, and yet the appetite was generally vigorous, and gratified in every particular consistent with the complication which now set in, namely, diarrhœa. The dejections became much more offensive, and were of a greenish clay color. Mild mercurials, with small doses of castor oil, never seemed to change their character, from first to last.

The urine was subjected to several examinations during her sick-

ness, but gave no trace of albumen or other abnormal product, save purpurine, as previously mentioned.

This was constant, and in abundance; its deep rich purple responding to the test proposed by Bird upon every occasion.

The abdomen was now so swollen that glandular enlargements, if any existed, could not be detected. Not having seen at this time any mention of the disease whose pathology we have briefly considered, I had regarded this case as one of mesenteric degeneration, complicated with a diseased condition of the lymphatic system generally, owing possibly to a depraved and vitiated condition of the fluids of the body.

I had satisfied myself, also, that malaria had nothing to do with the condition I have described, even as a remote cause, though symptoms somewhat similar are sometimes found associated with the enlarged spleen of a persistent intermittent.

In January the ankles became œdematous, and then the lower extremities throughout; this yielded somewhat to diuretics for a time; the diarrhœa was only controlled by opium; the emaciation was extreme, and she died in February, 1859, suffering little save from a feeling of exhaustion, and with a mind unclouded almost to the last.

I regret that I cannot give in support of my diagnosis such proof as an autopsy can alone afford, but none was obtained.

Treatment extended over a period of twelve months; the medicines administered were cod-liver oil, iodide of iron, quinine, and iodide of potash, chiefly with oleaginous frictions over the abdomen. But I have not dwelt on the treatment pursued, as I am not conscious that the progress of the disease was in the least retarded thereby; I merely make mention of it here, as I find that it was very like that pursued in the cases reported, and with a like result.

Report on the Clinic for Diseases of Children, held in the New York Medical College, Session 1860–61. By A. Jacobi, M.D., Professor of Infantile Pathology and Therapeutics.

(Continued from June No., p. 426.)

77. Maria B., æt. 9 years. *Atrichia Circumscripta.* Patient is a healthy-looking child, with well-formed head and soft and thick hair. There are, however, on the lateral, and particularly on the upper and posterior portion of the scalp, some twenty or thirty spots, of the average size of a Lima bean, entirely bald, and of a white appearance; they are not covered with any secretion or scab, but they are elevat-

ed, forming small tumors. All those which have recently arisen are somewhat painful on being pressed; those, however, of longer standing are not sensitive. The whole process commenced a year ago; in no instance has hair grown again where it once fell out. Before a microscopical examination was made, and before the idea of a parasitic origin of the disease was thereby suggested, the following prescriptions were given: R.—Liq hydriodat. arsenic. et hydrarg.,(Donovan,) ʒss. D. S.: 8 drops to be taken twice a day. R.—Bichlorid. hydrarg., ʒi.; aq., ℔. v. M. D. S.: for external use. The microscope showed the absence of fungi, and the case was then taken, the symptoms, moreover, perfectly corresponding with this diagnosis, as one of inflammation and induration of the follicles, with continuous pressure on, and injury to, the roots of the hair. Treatment: R.—Iodid. potassii, ʒij.; aq., ʒiv. M. D. S.: A tea-spoonful three times a day. R.—Iodid. sulphur., ℈j.; adip. suilli, ʒj. M. f. ungt. D. S.: For external use, three times a day. When last presented, no new bald places had arisen, and the old ones were less indurated, but no hair had as yet reappeared.

78. Isidor H., æt. 5 months. *Hæmorrhagiæ Subcutaneæ et Meningum.* Mother of patient is a dirty, thin, poorly nourished woman, with flabby breast, with other children who never showed similar symptoms. Patient is a small child, with thin lower extremities, otherwise apparently well developed, but with sallow skin generally, and enlarged liver. On his cheeks, temporal bone, chest, abdomen, back, in short, over all the surface of his body, the skin is of a dark livid, brownish color, elevated and hardened, to compare with the induration and elevation of urticaria. But the circumference of those spots is larger, being from one to six or eight square inches in size. Thus, the color and nature of the disease being evidently of petechial character, the local affections are enormously larger. Gums not affected. Lower extremities paralyzed for some time; as long, indeed, as the hæmorrhages have occurred under and in the external skin. Thus, the assumption of hæmorrhage inside the vertebral column having taken place cotemporaneously with the others, is more than probable. Further, the assumption of local affections being the cause of the hæmorrhages, almost countless in number, must be given up. The cause must be looked for in either a thorough change in the composition of the blood, or a decomposition of the walls of the blood-vessels, or both. For such only are the means of explaining the hæmorrhages occurring in all the cases of poisoning and decomposition of the blood, as in purpura, scarlatina, typhoid fever, scurvy, and others. Treatment: Reg-

ulation of diet, fresh air, beef, etc.; acids, both vegetable and mineral, carefully to be avoided—because, contrary to the belief in the styptic powers of acids, nothing will add more to the decomposition of the blood than a continued administration of acids; and R.—Tinct. fer. muriat., five drops every four hours. This was from time to time changed for syr. ferr. iodat. in similar doses, but the treatment has been continued ever since, for five months. Child meanwhile thrives; hæmorrhages gradually change their color into a greenish-yellow; no new ones make their appearance, and those existing lose considerably in intensity; the motor power of the lower extremities greatly improved.

79. Leonard H., æt. 3 years and 6 months. *Phlegmone, Cellulitis, and Periostitis* of first toe, right foot, caused by traumatic injury. Intense pain for some weeks past; toe of a deep-red color, nail thrown off; abscess near matrix. Treatment: Deep incision to the bone of the last phalanx, and cold water to the part; after some days, application of Goulard's water with tinct. opii.

80. Michael T., æt. 4 months. *Eczema Capitis.* Apparently mild case, but is likely to prove obstinate, as probably the breast-milk of the mother, now constituting the only food, is insufficient nourishment. Treatment: Soap and water, and frequent application of zinc. sulphat., ʒj.; axung. porci., ʒvj.; continued for several weeks before the scalp appeared entirely clean. Returns after two months with the same symptoms, the eczematous scabs being even thicker than before. Treatment: Two meals daily, (in addition to breast-milk, which appears very white and heavy,) of beef-tea, well salted; and R.—Liq. potass. caust., ʒj.; ol. morrhuæ, ʒj. M. D. S.: To be applied twice a day.

81. Samuel D., æt. 5 years. *Terrores Nocturni ex Febri Intermittente. Spasmus Vesicæ Urinariæ.* Is well all day, takes his food regularly, his supper at 6 P. M., goes to bed between 8 and 9 P. M., awakes with feverish symptoms and night terrors between 10 and 11 P. M., and can hardly be quieted before midnight. Digestive organs in order; no constipation; no worms; heart normal, both in anatomical condition and function; no cerebral symptoms except those mentioned; this condition of things has come on suddenly, and has continued for more than a week; moreover, he has a constant inclination to pass urine; its emission is scanty and painful; no mucous deposits reported to have been observed by the father. Treatment: R.—Sulphat cinch., gr. xv. Div. in p. ii. D. S.: a powder at 7 o'clock, P. M., on two subsequent days; besides, R.—Pulv. rad. belladonn., gr. viii.; sacch. alb., ʒij. M. f. pulv. div. in p. æq., No. xvj. D. S.: three

powders a day. Reported to be well after a week; no more night terrors after the first dose of quinine.

82. Francis P., æt. 7 years. *Dentes Incisores Obliqui.* The middle permanent lower incisors have protruded before the temporary had fallen out, and point inward and upward. The temporary teeth extracted.

83. Charles B., æt. 2 months. *Frenulum Linguæ Oblongatum.* Incision.

84 James A., æt. 9 years. *Dilatatio Cordis. Anæmia.* Patient is believed to have been well during the greater part of his life, but for two months past he has been exposed to five attacks of a peculiar nature. Shortly after falling asleep, he awoke with twitching of the muscles of the right side of face, which lasted about a minute; after this his limbs got slightly rigid, a rattling noise was heard in his throat, his face grew pale, and his mental faculties seemed somewhat obnubilated for a short while; meanwhile his health otherwise, and his appetite, are not impaired. A younger sister of patient fell sick half a year ago with attacks of convulsions; she died after four weeks' illness. A brother of twenty-one years of age died after an illness of eighteen days, after having previously repeatedly suffered from palpitations of the heart; they would return in a very troublesome manner whenever he partook of stimulants during his malady. He died suddenly, after half an hour's palpitation of the heart, brought on by taking a small quantity of brandy-punch. This patient is very tall for his age, thin and pale; conjunctivæ very anæmic; impulse of heart and pulse very feeble; pulse 116; external veins on thorax and abdomen greatly injected; dull sound on sternum and left side of thorax, from third to sixth ribs; attacks of weakness and syncope from time to time. Treatment: Air, generous diet. ℞.—Ferr. carbonat., ʒj. Div. in p. æq., No. xxx. D. S.: three powders daily. This treatment was continued for a long time, and patient was, and felt, greatly improved.

85. Maria M., æt. 2 years. *Stomatitis. Amygdalitis.* Mucous membrane of the mouth, tonsils, and pharynx highly injected; tonsils swelled, and to be felt externally; tongue red; papillæ clavatæ elevated; breath not particularly fœtid; submaxillary or cervical glands not particularly swollen. Treatment: ℞.—Chlorat. potass., ʒiii.; aq., ʒvi. M. D. S.: A tea-spoonful every hour.

86. George B., æt. 6 years. *Rhachitis.* Is reported to have been affected with scarlatina when eight months old, this being about the only sickness he has ever suffered from. He is not well developed; his frame small; face and general appearance anæmic; intellect good.

The upper and lower condyles of tibiæ are greatly swollen; so is the lower of the radius; tibiæ show curvature inward; sides of the thorax flat, there being nearly a right angle in about the half length of all the ribs; sternum prominent; no scoliosis; impulse of heart very strong; sounds audible at a great distance; no disease of the lungs, except general compression. Treatment, besides regulation of diet: R.—Ferri. phosphat., gr. iv., three times a day; cod-liver oil.

87. Thos. J., æt. 4 years. *Fractura Clavículæ, extr. Acromialis.* Clavicle was fractured in its outer third, transversely, from a fall on the hand and elbow. Treatment: Mitella, fastened by a few pins. Presented well a fortnight after.

88. James A., æt. 9 years. *Herpes Circinnatus*, (ring-worm,) on four distinct localities on abdomen and right femur, of a quarter of an inch to two inches in diameter. R.—Sulphat. ferri, ℥j.; Cerate simplic., ℥vj. M. f. ungt.

89. George F., æt. 12 years. *Prolapsus Recti.* Had dysentery last year, and has suffered from prolapsus of the rectum since. The rectum, with all its membranes, will protrude about an inch and a half through the anus after each defecation, viz., twice or three times a day. The mucous membrane will frequently bleed, is livid and swelled. Treatment: R.—Ext. nuc. vom. alc., ℈j.; cerat. simplic., ℥ij. M. f. ungt. The size of a bean to be introduced three times a day. Reported a week after so much better, that sometimes a defecation will take place without prolapsus, and that the rectum will generally protrude but once a day. Treatment had, however, to be continued for six weeks.

90. John O'L., æt. 3 years, 3 months. *Prolapsus Membranæ Mucosæ Recti.* The mucous membrane will protrude after every defecation, (1 or 2 a day,) for a little more than half an inch. Patient has been suffering from chronic intestinal catarrh for a number of weeks, and has not been well for more than a fortnight. R.—Acid. tannici, ℥iii.; aq., ℔ iii. M. D. S.: An injection of an ounce to be made three times a day.

91. George C., æt. 2 months. *Fungus Umbilicalis.* Firm cicatrization has never taken place after the falling off of the funis, but a pediculated excrescence has been observed growing from the wound for a number of weeks. Now it has reached the size of a bean. Treatment: Ligature.

92. Esther B., æt. 4 months. *Intertrigo.* The folds of the neck, groins, and femur are partly erythematous, partly ulcerated, after having lost their epidermis. The child is well, fat, and hearty; no diar-

rhœa; no morbid predisposition probable. ℞.—Sulphat. zinci., ℥ss. D. S.: To be dissolved in a quart of water, and applied externally.

93. N. M., æt. 4 months. *Intertrigo.* The folds of neck and groins erythematous. No ulcerations. The child, when presented, was wet and dirty. Scrofulous; cleanliness and cold water recommended. Three days after, still erythema. Goulard's wash.

94. Mary L. D., æt. 3 months. *Atheroma.* A small circumscribed tumor of the size of a small revolver ball, on the outer end of left superciliary arch; not painful; believed to have been caused by a fall some weeks ago. Treatment: Subcutaneous discission and pressure. A clear, viscid liquid was squeezed through the external wound.

95. Ann L., æt. 12 years. *Chorea Minor.* Involuntary movements of all the voluntary muscles, particularly of the right side. Difficulty in speaking, swallowing; twitching of the muscles of the face; sometimes, for a short time, strabismus. Has been in about the same state for three months, without any premonitory symptoms, or without any preceding disease except a mild intestinal catarrh. No pulmonary symptoms; no heart disease. Never had acute rheumatism. Is very tall for her age, and anæmic; impulse of the heart pretty strong; cheeks and conjunctivæ pale. No fever. Treatment: Solut. arsenic. Fowler, ℥ss. D. S.: three drops three times a day; and ℞.—Syr. ferri iodid. D. S.: twenty drops three times a day. Presented, after three weeks, greatly improved.

96. Charles L., æt. 9 months. *Vaccination* performed.

97. Peter L., æt. 8 years. *Helminthiasis.* A number of ascarides have been passed, previous to which, the boy had suffered for months from restlessness and occasional night terrors; from diarrhœa alternating with constipation, and loss of appetite, interrupted by voraciousness. Cheeks bloated. Pupils enlarged. Treatment: ℞.—Santonia., gr. viii.; Submuriat. hydrarg., gr. xv. M. f. pulv., div. in p. æq. vj. D. S.: Take three powders a day.

98. Edward P., æt. 12 weeks. *Eczema Capitis. Constipatio.* A brother of this patient, now three years old, has had an eczematous eruption since his fourth month. Thus, there is probably a morbid condition common to both, or the cause is to be sought for in the breast-milk of the mother. Child is mostly constipated, having a passage once a day, or once in two days. Fæces look white, curdled, are hard, and not of a uniform character. The milk of the mother looks also whiter, and is less sweet than normal. Thus, at all events, there is some fault in the nutrition of the patient, being the probable cause of both eczema and constipation, viz., superabundance of caseine

in the composition of the milk. By restoring a more normal composition, we shall probably remove one, and greatly relieve the other of the two complaints. Evidently, there is sugar wanting in the mother's milk, if nothing more. By restoring the power of producing lactic acid, the caseine will be digested and assimilated, and the bowels will no longer remain constipated. Treatment: Give the child, each time before he is put to the breast, a tea-spoonful of powdered white sugar in a little water. Wash the head with soap and water thoroughly, three times a day, and afterwards rub it with, R.—Zinc. oxyd. albi, ʒj.; adip. suilli, ʒij. M. f. ungt. Child had no constipation when presented a fortnight afterwards; fauces yellowish and uniform. Eczema doing well.

99. Ellen McK., æt. 4 years. *Broncho-Pneumonia, Rhachitis, Anæmia.* The girl is emaciated and anæmic from two causes. She has been rhachitic for years, and suffering from bronchitis and pneumonia for six weeks. Her limbs show the symptoms of rhachitic curvature and intumescence; her ribs are laterally compressed; cheeks and mucous membranes very pale. Percussion sound dull over left fossa supra-spinata; mucous râles over left lung, both anteriorly and posteriorly. No fever, no dyspnœa, both of which are reported to have been very intense some weeks ago. As the pulmonary symptoms are evidently diminishing spontaneously, the greatest care is to be given to the general health; the more so as the appetite is very low, tongue furred, and pulse small and frequent. Treatment: Nitrogeneous food, fresh air, and R.—Sulph. cinchon., ℈j.; subnit. bismuth, ʒss. M. f., pulv. div. in p. æq. No. xii. D. S.: Three powders a day. This prescription is again given after some days, and digestion being in fair order, cod-liver oil recommended.

100. Mary D., æt. 1 year, 2 months. *Oxyuris Vermicularis.* For a number of weeks the child has been observed to scratch his anus and genitals, both of which are hyperæmic. Slight discharge from vagina. Tenesmus. A number of oxyurides have been found in the evacuations. Treatment: Injections once a day, for three days, of a fresh-made decoction of garlic in milk. Cold water externally.

101. James T., æt. 8 months. *Eczema Capitis.*

102. Edward P., æt. 3 months. *Eczema Faciei et Colli.*

103. Conrad G., æt. 5 years. *Eczema Capitis et Faciei.*

104. Eliza C., æt. 3 years. *Eczema Capitis. Rhachitis. Catarrhus meatus auditorii externi.* Of these cases of eczema, 101 and 102 were such as are very common in general practice; cases of eruption attending the normal development of early infancy. The seat of the

greatest intensity in this development appears to be in both the solid and soft parts of the head, exhibiting not only in its normal effect the rapid growth of the bones of the cranium and face, the process of dentition, and a high temperature of the cranium, but also, as morbid symptoms, an exceedingly great inclination to convulsive and exudative diseases. Thus it happens that these eruptions are, under different names, often considered not as co-ordinates of, but as results from, a coincident process, viz., dentition. Now, as they are, in many cases, to be taken as excesses of a normal process, it follows, first, that eczematous eruptions, of long duration and great intensity in very young children, must not be suppressed at once, (cf. 38,) and further, that such cases are apt to prove very obstinate; the more so, as in a number of cases some errors of diet, sometimes arising from a defective constitution of the breast-milk, are amongst the causes. 101 and 102 were ordered to have the scabs removed by the frequent use of soap and water, and three times daily: ℞.—Zinc oxyd. alb., ʒj.; adip. suilli, ʒvj. M. f. ungt.; and in addition, the diet of the first was changed, so as to be more animal. 103 was a very hearty and stout boy, with hard and solid scabs all over his head and face, nose and eyelids scarcely excepted, covering a layer of pus and the sore scalp. The layer of dried-up pus, epithelium and dirt was so thick, (from $\frac{1}{12}$–$\frac{1}{4}$ inch,) that the features of the boy could not be recognized. He was reported to have been affected with this eruption for the last four years; that it sometimes had disappeared, but always returned. This case was ordered to be subm itted to a universal combing, oiling and soaping, and to be presented three days afterwards. From this time forward he was washed, five or six times a day, with a solution of sulphate of zinc in water, (gr. vj.–xii. to ℥j.) 104 was a poorly-looking girl, with eczematous pustules all over her head, after like pustules had disappeared from the whole surface of her body, with symptoms of generally bad development. Glands were found to be swelled around her neck in a larger number than could be explained by the presence of the eruption; even some of the inguinal being tumefied. Catarrh of the external ears, with muco-purulent discharge, had been observed for several months, without there being an affection of the inner ear or the tympanum, and the large fontanel was still open. As this is closed, not by osseous matter, but a solid fibrous bridge to such an extent as not to allow the pulse to be felt through it, at thirteen or fourteen months of age, in normally developed children, this case exhibits a decided want of development in the osseous system. Moreover, the lower extremities show curvatures, and the radial ex-

tremities of both forearms are swelled. The discharge from the external ear was submitted to injections of: ℞.—Sulphat. zinci, ℈ij., aq. ℥vj., three times a day; the eczematous eruption treated with soap and water, and ℞.—Acid. tannic., ℥j; adip. suilli, ℥vj. M. f. ungt. D. S.: To be rubbed in three times a day; and the general constitution improved by mostly an animal diet, and the use of three doses daily of half a table-spoonful of cod-liver oil, with ten drops of syr. iodid. ferri.

105 John S., æt. 5 years. *Herpes Circinnatus* (Ring-Worm) on four different places of left shoulder, neck and face, of a diameter of from half an inch to nearly two inches. ℞.—Sulphat. zinci, ℥j.; adip. suilli, ℥vj. M. f. ungt. D. S.: For external use, four times a day; the same dose repeated after a week, when the boy was not yet quite well.

106. Catharine B., æt. 3 years. *Atrichia Localis. Erythema et Eczema.* The child had been severely burned over and near her large fontanel when four months old. No hair had grown there since, but the spot had almost always been sore. Usually there would appear small herpetic or eczematous vesicles, that would dry up and fall off after a while, leaving a sore and sensitive surface. The skin had never looked natural. Treatment consisted in the frequent application of a solution of bichloride of mercury in distilled water, (gr. j. to ℥j.) The color and consistency of the skin grew more natural from week to week, but the local baldness was not removed.

107. Patrick T., æt. 4 years, 6 months. *Catarrhus Laryngis.*

108. Mary R., æt. 5 years. *Catarrhus Laryngis et Pharyngis.*

Both of these patients have the peculiar croupy cough depending on catarrhal affection of the mucous membrane of the larynx, without any affection of the bronchi or lungs, and with very moderate fever. 107 was soon relieved by the use of syr. squill. compos., 15 drops every two hours, and a single dose, at bedtime, of pulv. Doveri, gr. iij. The other had been affected with measles fifteen months before, and was said to have coughed ever since. Consonant mucous râles occasionally heard over the bronchi, but none that could be attributed to an affection of the bronchial mucous membrane itself; no diminution nor abnormal harshness of respiration; no dull sound on percussion. If, indeed, cough has been present all the time, it cannot be explained by any pulmonary trouble, but depends on the catarrhal affection of the larynx and pharynx alone. This assumption is the more justified, the more it is proved by facts, that there are few more obstinate affections than chronic pharyngeal catarrh.

Treatment: Tinct. iodin. externally to the throat, twice a day. Pulv. Doveri, gr. iij., every night. Acid. benzoic., gr. j., every two hours for some days; after which time, as the patient commenced to feel relieved and to cough less, the expectorant was discontinued. The other treatment continued for some time, with good results.

109. Eliza S., æt. 1 year, 8 months. *Bronchitis.*

110. Jeremiah G., æt. 10 months. *Bronchitis.*

111. Edward D., æt. 3 years, 9 months. *Bronchitis.*

None of these cases could be called severe. The diagnosis was easily made, by the presence of sibilant and mucous râles; the former predominant in 109 and 111, the latter in 110, (in 111 on the left side only,) and the chest being sonorous on percussion. Fever moderate; some dyspnœa in all of them. No crepitating râles nor dullness, no paroxysms of cough. In none of them was the disease a secondary affection, and all of them got well in a few days. Internal treatment of 109: R.—Oxysulphuret. antimon., gr. viij.; extr. hyoscyam., gr. iv.; sacch. alb., ʒss. M. f. pulv. Div. in p. æq. xvj. D. S.: A powder every three hours. 110: R.—Muriat. ammon., extr. glycyrrhyz., ää., ʒij.; aq., ʒiij. M. D. S.: A tea-spoonful every two hours. 111: R.—Oxysulphur. antimon., gr. xvj.; sacch. alb., ℈ij. M. f. pulv., div. in p. æq. No. xvj. D. S.: A powder every three hours. R.—Pulv. Doveri, gr. iij., every night at bedtime.

112. James J., æt. 7 years. *Tuberculosis*, left lung, upper lobe.

113. Edward D., æt. 3 years, 7 months. *Pneumonia*, left lung.

114. James McC., æt. 2 years, 3 months. *Bronchitis*, right lung. *Pneumonia*, left lung, upper lobe.

115. Joseph F., æt. 14 years. *Pneumonia Bilateralis.*

116. Joseph McC., æt. 4 years. *Pneumonia*, right lung. *Rhachitis.*

Of 112 no exact history could be obtained, except that the patient had been coughing and suffering for a long time. Father said to be affected with some pulmonary trouble. Mucous râles all over the chest, especially in the right subclavicular region; here, also, decided dullness on percussion. Dyspnœa moderate. Pulse 124; respiration 34. Looks anæmic, and is evidently much emaciated. Was taken to be a case of pneumonia, right lung, upper lobe, accompanied by general bronchial catarrh, in its third stage, the hepatized parts being presumed to undergo a process of resolution. No treatment was, therefore, thought advisable, except R.—Sulphat. quin., ʒss., div. in p. æq. vj. D. S.: A powder every morning. After a week, the patient was again presented. Very few mucous râles; a few sibilant râles. Dullness in right subclavicular region as distinct as before; respiratory mur-

mur vesicular, and diminished; respiratory murmur in left subclavicular region, puerile; expiratory murmur prolonged. Nowhere bronchial respiration. Moreover, right subclavicular region sunk, and right thorax of less circumference than left, by half an inch. From this time, the case was considered to be one of tuberculosis, and an appropriate diet, animal food, fresh air, gymnastic and other exercise, and cod-liver oil, ordered. No. 113 was a very anæmic boy, who had suffered from the first attack of scarlatina five weeks before. Thus he had scarcely gone through the whole process. This pneumonia was in the left lung, lower lobe, and probably small lobuli had taken part in the inflammatory process in other places, as there were sibilant and mucous râles spread over the lungs to a large extent. Treatment: Pulv. Dov., gr. ijss., every night; sulphat. quin., gr. vj., every morning. No. 114 was a very instructive case, inasmuch as it distinctly showed the relation of bronchitis and pneumonia in the infantile lung. When first seen, the child had bronchitis in the right lung, and a hepatized upper lobe of the right. Treatment: ℞.—Sulphat. quin., ℈ij.; acid. tannic., gr. viij. M. f. pulv. Div. in p. æq. No. xvj. D. S.: Two powders a day; and pulv. Dov., gr. ijss., every night. A week afterwards the hepatization had disappeared, no dullness being perceptible any longer; but where there was bronchitis before, hepatization had now taken place. Under a similar treatment, the boy soon recovered, but some time elapsed before his anæmic and general weakness was overcome. All the time, no sequelæ of scarlatina were observed. Still better than in this case, the relation between bronchitis and pneumonia, and the normal course of this latter disease, was illustrated by No. 115, a boy of fourteen years, in whom the disease had the peculiar lobular character of infantile age. He was presented on April 5th, with pneumonia, (hepatization,) in right lung, upper lobe, anteriorly, and bronchitis on left side. Treatment: Generous diet, and ℞.—Sulphat. quin., gr. xij.; ac. benzoic., ℈j.; gum-arabic, ℥ss. M. f. pulv. Div. in p. æq., No. xvj. D. S.: A powder every two hours. April 9th.—Dullness over right lung, upper lobe, diminished; some mucous râles. Bronchitis on left side apparently in the same condition. Same treatment, with the addition of some daily doses of bismuth. subnitrat., gr. v., as his digestive powers were very low in consequence of an inveterate gastric catarrh. April 12th.—No more dullness on percussion over the right lung; some mucous râles; some also in the lower lobe, right lung, where no infiltration had been before discovered. Dullness on percussion over left lung, upper lobe, posteriorly, with bronchial respiration. April

16th.—Vesicular respiration in right lung, and lower lobe left lung. Mucous râles in, and slight dullness on percussion over left lung, upper lobe. No fever, no dyspnœa, and appetite good. Patient was not presented afterwards. No. 116 was one of the frequent cases of lobular pneumonia in children whose constitution has never been good, and whose lungs are, in connection with the rhachitical misdevelopment, very subject to catarrhal affection. Such are the very cases that eminently show the necessity of tonic and restorative diet and treatment during the course of a large number of diseases of infantile age, even such as are often believed, from their inflammatory character, to require antiphlogistics, derivants, etc. Such are the cases in which quinine in large doses will prove to be the best antiphlogistic. Treatment: ℞.—Sulphat. quin., ℈j. Div. in p. æq., iv. D. S.: A powder to be taken every morning and afternoon. Two days afterwards, when the fever was less, and hepatization had fairly commenced: ℞.—Sulphat. quin., acid. benzoic., aä., ℈ij. M. f. pulv. Div. in p. æq., No. xx. D. S.: Give three powders every day.

117. Rudolph M., æt. 1 year, 4 months. *Hernia Inguinalis Sinistra.* Patient has had his inguinal hernia, left side, for a year. Nothing as yet has been done for it. Treatment: Truss, to keep back the hernia until the gradual change in the direction of the inguinal canal, taking place in early infancy, will have brought on a radical cure.

118. Benjamin B., æt. 3 years, 9 months. *Otitis Interna.* Patient had scarlatina a year ago, and hypertrophic tonsils still. Was observed to have a running ear soon after the scarlet fever. Discharge sometimes copious, sometimes little, white, yellowish; in rare instances bloody or serous. Smell sometimes offensive; tympanum perforated, and discharge evidently from the internal ear. Hearing on the left ear impaired. The disease is evidently the result of the throat complication of scarlatina, transmitted through the Eustachian tube into the internal ear. Prognosis, after the process has lasted so long, unfavorable as to a perfect restoration of hearing on the left ear. Treatment: Blister on the mastoid process; utmost cleanliness, and injections of a solution of tannic acid in water, gr. iv. to ℥j.

119. Catharine T., æt. 11 years. *Stomatitis, Pharyngitis. Adenitis Submaxillaris.* Inflammation of the pharynx and mouth was complicated with swelling of the submaxillary glands to such an extent as is usually seen in diphtheritic inflammation only. But no membranes, nor any ulcerations which could have been the seat of previous membranes, were visible. ℞.—Chlorat. potass., ℥ss.; aq., ℥viij. M. D. S.: Half a table-spoonful every two hours.

120. N. B. McF., æt. 3 years, 3 months. *Febris Exanthematica.* Pulse 140; respiration 36; face flushed, and head very hot. General temperature of all the body high; tongue slightly furred. Mouth hot, and pharynx somewhat injected; tonsils and some lymphatic glands in the neighborhood a little swelled. No cough, no diarrhœa. Threw up once. No local disease being found, the case was pronounced to be probably one of exanthematic fever, and a daily dose of sulphat. quin., gr. vj., recommended. Three days afterwards the child was reported to be suffering from scarlatina.

121. Michael C., æt. 4 years. *Ascites.* Patient had scarlatina ten months ago; two months after this affection the dropsical swelling of the abdomen was noticed. Other accounts are difficult to obtain. No anasarca, no local pain; no local disease except the abdominal effusion discovered. The case was therefore, before an examination of the urine could be made, taken as one of hydrops depending on albuminuria, and tannic acid, in three daily doses of two grains each, was given for a fortnight. Meanwhile no albumen was found in the urine, nor did the closest examination of every single organ reveal any anatomical degeneration that could be considered to be the cause of the disease. The liver alone could not be subjected to a sufficiently rigid examination, from the expansion of the abdominal cavity with liquid. The treatment was therefore merely symptomatical and palliative, with the intention of stimulating the secretions of other organs. ℞.—Infus. colocynth., (e. gr. xij. parat.,) ℥iv., liq. ammon. acetat., syr. squill, ää., ℥j. M. D. S.: Half a table-spoonful four times a day. The dose was gradually increased, until the perscription was this: ℞.—Infus. colocynth., (e. ℈ij. parat.,) ℥iv. ss., iodid. potassii, ʒv., liq., ammon. acetat., syr squill, ää., ℥j. M. D. S.: Half a table-spoonful four times a day. The boy was under our care about seven weeks altogether, and was improved, but not cured.

122. Sarah R., æt. 11 years. *Meningitis Spinalis.* When patient was first presented, on April 19th, the following history was given: She had measles in January, 1860. Afterwards, she constantly complained of pain in her back, which gradually increased until in May, 1860, her locomotory power was somewhat affected. She, nevertheless, walked till August, when she lost all power over her limbs, and when sometimes "the water would stop," the catheter had to be used at different times, and excruciating pain was felt all through her body. Two months before she was presented, the first convulsions were noticed. She would violently shake upper and lower extremities, and would bite; at the same time her eyes would be shut. The color of

her face would not be changed much, and patient felt very much exhausted after such an attack. She would know when she was going to be taken with convulsions, which would come as frequently as eight or ten times during a day, and twice or three times during a night; every attack lasting from three to four minutes. All the weeks before she was presented, she had five or six attacks every day; and she was sure never to miss a day without having convulsions. Her mind appears to be intact; her appetite is moderate; thirst increased; pulse averages 118–120; bowels costive; water is passed slowly. Vertebral column is painful, both spontaneously and on pressure. There is no vertebra on which pressure is well borne; but the sixth and seventh cervical, and first, fourth, eighth and twelfth dorsal vertebræ are exceedingly sensitive. Only a limited motion is possible in the upper extremities; the hands are contracted, the flexor muscles overcoming the counteraction of the extensors. The same contraction is noticed in the toes of either foot. Both lower extremities paralyzed. The diagnosis was pronounced to be spinal hyperæmia, and a treatment was commenced according to the principles laid down recently by Brown-Séquard. It has long been supposed or known, that there are remedies that have a direct influence on the size of the blood-vessels; for instance—cinchona. On several others, Brown-Séquard has made very careful and accurate investigations, viz., on ergot and belladonna. He attributes to ergot the power of contracting the elastic layer of the blood-vessels, and vindicates to belladonna a similar action; so much so, that it would prove the exact contrast to opium, which is known to dilate the lumen of blood-vessels. Ergot is declared to be of excellent service in hyperæmic conditions of the spine and consecutive paralysis; whereas, strychnia, which has been the routine remedy in any and all spinal diseases complicated with paralysis, is indicated in such only where there is anæmia. Without, however, going into details here, I wish to add, that in a separate article I hope to expose other experiments and observations on the use and effect of ergot. Our patient was considered to be a fit subject for the administration of ergot, and the following prescription given: ℞.—Infus. secal. cornut. (e ℥jss, cum acid. sulphur. dilut. ♈j. parat.) ℥iv.; sulphat. quin., ℥ss. M D. S.: a tea-spoonful every three hours. No local applications; no derivants whatsoever. On April 10th, she had two attacks; on April 11th, a very short one. Not a single attack since. On the 16th, a few drops of laudanum were administered, to check a diarrhœa; on the 30th, the ergot employed for the infusion was increased to ℥ijss.; and on the 7th of May, when it was thought proper to give a chalybeate for her

general anæmia, complicated with epistaxis at the same time, tinct. muriat. ferri, gtt. xij., was ordered to be taken three times a day. About this time she not only had no attacks of convulsions, but recovered the power of her lower extremities. She was presented to the class on May 24th, when she was able to walk, and the pain in her back was nothing compared with what it had been. After this time, she was taken, from a cause unknown to us, with catarrh of the stomach; so much so, that she commenced vomiting. Subnitrate of bismuth, carbonate of iron and alkalines, appeared not to operate so rapidly as we desired, and the condition of the stomach seemed to counter-indicate the use of the ergot; of Squibb's fluid extract I at that time had no reliable information. After ten days, during which time our patient had not taken ergot, she was again taken with convulsions. It was prescribed again, but according to what has been learned afterwards, it had probably not been taken. I then availed myself of the kindness of the directors of the Jews' Hospital, who permitted the patient to be transferred into one of their wards. There I commenced the administration of ergot again, and with the result that no convulsions were observed for a day or two. Slight twitchings were observed on the day of her transportation, and she complained much of pain in her back; but she soon felt better. Her stomach was still disordered, and in order to perfectly restore her digestive powers, I omitted ergot for a short time, ordering, however, a daily dose of quinine and gr. ss. of extr. belladon., three times a day. She had no convulsions, and recovered her appetite in two days, when she was clandestinely over-fed by her mother on the next visiting day. Again she vomited, throwing up immense quantities of indigestible food, but had no convulsions. Next day, when I went to the hospital with the intention of recommencing another course of ergot, having selected for this purpose Squibb's fluid extract, she was *non inventa*. Her mother had removed her, because "her darling did not get enough to eat, and had no doctor to take care of her;" and a day afterwards, she "had a clever doctor now, at last; and he had told her right off, that her darling could not be saved."

123. William C., æt. 7 months. *Rhachitis.* Epiphyses of the tibiæ, radii, and ulnæ, greatly swelled; legs curved outward; costal cartilages pointing forward; sternum prominent; ribs angular on both sides of the thorax; liver enlarged. Skin pale, anasartic. Child generally badly developed. No teeth; little hair. Occiput nearly bald; not mollified. Treatment: Generous diet. Ol. morrhuæ.

124. Leonora B., æt. 7 years. *Abscessus Auris externæ.*

125. Anna B., æt. 5 months. *Abscesses Capitis. Eczema Frontis.* Over the mastoid process and in the external ear, and just in front of the ear over the temporal artery, right side, there were deep and large abscesses, which had been maltreated with blisters, leeches, and *hoc genus omne.* Incision and water dressing. The abscess, 125, was on the top of the right parietal bone, near the small fontanel. Incision. The eczematous eruption was treated with a wash of sulphat. zinci, (gr. viij. to aq. ℥j.)

126. Moses F. B., æt. 8 months. *Synovitis.*

127. Th. T., æt. 3 years. *Synovitis.* These two cases were presented on two subsequent days, and a different teatment was resorted to. Both were in the foot-joint. One was treated with tinct. iodin. externally, twice a day, and was not presented long enough to afford a fair opportunity of learning its effects. The other was submitted to compression by means of a bandage, and its size was soon considerably reduced, but was also not presented until a complete cure could be accomplished.

128. James G., æt. 2 years, 3 months. *Prolapsus Recti. Pertussis.* Had gastro-intestinal catarrh last summer, and since then after each defecation the thickened mucous membrane and submucous tissue of the rectum would protrude from six to nine lines in length. Had, moreover, whooping-cough, which commenced last summer, and continued still but little abated up to March. ℞.—Extr. nuc. vomic., gr. x.; cerat. simplic., ℥ij. M. f. ungt. D. S.: To be applied to the mucous membrane of the rectum three times a day. And: ℞.—Extr. bellad. alco., gr. viij.; sach. lact., ℥j. M. f. pulv., div. in p. æq. No. xvj. D S.: Two powders a day. After a week, both the prolapsus and whooping-cough were greatly improved, and the treatment continued.

129. Mary F. T., æt. 1 year. *Adenitis Submaxillaris.* Patient was a small, puny child, with thin limbs, white skin, and rhachitic appearance. Her face was considerably swelled, in consequence of an immense tumefaction of both submaxillary regions, particularly the left. On the right side, single glands could still be distinguished, large though the swelling was, but the left side was a solid mass, with but a single spot on which a feeling like elasticity or fluctuation was perceptible. The child suffered from the utmost dyspnœa, snoring loud, and gasping for breath, being unable to open the mouth. The dyspnœa was very similar to that produced by general suppurative pharyngitis, or retro-pharyngeal abscess. The principal and most urgent symptoms were removed by an incision made into the tumor of

the left side. A large amount of pus was removed. From this time forward, the greatest care was taken to obtain two points, viz., to improve the general condition of the patient, and to reduce the size of the tumors on either side. Poultices were applied to the left; a second incision was made a week later; iodine was applied to the right side, (℞.—Iodid. potassii, ʒij.; glycerin., ℥ss.) and ol. morrhuæ ʒj. given three times a day, with six, eight, or ten drops of syr. iodid. ferri. Generous diet as soon as the child was again able to swallow. Low as the child was, and bad as her constitution appeared to have originally been, it took two months before even single glands could be distinguished in the left submaxillary region. But when the child was presented for the last time, and ordered the same treatment, there was no reasonable doubt of her perfect recovery after a little more time had elapsed.

130. Michael T., æt. 3 years, 6 months. *Pannus*, on both eyes. The spots on either eye have covered the centre of each cornea, just in front of the pupil, for a long time. The inflammatory process of conjunctivæ and corneæ, which has given rise to them, has pursued its course for years. Treatment: Daily application of submuriat. hydrargyr. to each eye. A fortnight afterwards the spots were reduced to half their former size. Treatment continued. Patient not again presented.

131. Christian L., æt. 5 years. *Anæmia. Intermittens.* Patient is tall enough for his age, but thin, emaciate, feeble and pale. Conjunctivæ and mucous membranes generally very anæmic. Complains of headache, unilateral and bilateral. The impulse of heart strong, but no abnormal sound; no bellows murmur; nor is there abnormal dullness on percussion. Every night, for a week past, he has been awakened a few hours after he has fallen asleep, by an attack of fever, that would last a few hours. As no cause of any other nature can be found to explain these attacks, they are taken as attacks of intermittent fever. ℞.—Sulphat. quin., gr. xv. Div. in p. æq. ij. D. S.: A powder at bedtime on two subsequent days. No other attack was observed. His general health was gradually improved, and his anæmia removed, by three daily doses of carbonat. ferri, gr. ij., each.

132. Mary V., æt. 7 years *Insufficientia Valvulæ Mitralis, Hypertrophia Cordis, et Hepatis, Icterus.*

133. Kate M., æt. 9 years. *Insufficientia Valvulæ Mitralis. Anæmia.* According to the history of No 132, she had acute rheumatism some four years ago. She had not been herself since. Was emaciated; suffered occasionally from dyspnœa and palpitations, and loss

of appetite. Bellows murmur instead of the first sound, nearly covering the second; most audible below and near the left nipple. Impulse of heart powerful; dullness on percussion from above the third rib down to fully the sixth, and even below; external thoracic, and jugular, veins injected. Lower margin of the liver perceptible to the touch; dullness on percussion as far up as above the fifth rib. The color of the skin is greenish; her bowels irregular—sometimes costive, sometimes loose. The icterus, in this case, must be explained by the hyperæmia of the blood-vessels, not of the liver, but of the mucous membrane of the choledoch., etc., ducts, in a similar manner as those frequent cases of so-called gastro-intestinal icterus. Costiveness alternating with diarrhœa is a common symptom in cases of enlargement of the liver in which the circulation of the portal vein and its ramifications is disturbed. Treatment: Ferri, digitalis, ää., gr. vj.–viij., daily, in 3 doses. After a number of weeks, all the symptoms, with the exception of the dullness belonging to the enlargement of the heart, were decidedly less prominent; icterus disappeared; palpitations and dyspnœa decreased; she recovered her appetite, and gained strength. No. 131 was of a similar character, but without the prominent symptoms as in the preceding case. Particularly, there was no icterus, although great anæmia.

134. Catharine O'C., æt. 4 months. *Spina Bifida.* Patient was well developed; a little smaller than children of her age. No deformity whatsoever, particularly no talipes. Only the sensibility and mobility of the lower extremities somewhat less than normal. On the lumbar region was a tumor of about two inches and a half in diameter in each direction, which was elastic and compressible, and evidently contained liquid. By pressing on the tumor, a fissure through at least two of the vertebræ was perceived, while at the same time the child grew restless and commenced crying. The whole of the tumor, which was about two inches in height, was not covered with cutis, but its most prominent point, which was semi-transparent, had epidermis, and but a thin layer of cutis covering it. Here, evidently, the membranes of the spine were almost the only constituents of the sac in which the liquid (cerebro-spinal liquid) was contained. It was thought proper to resort to as mild an operative proceeding as possible, and therefore a thin silver wire was laid through it. During the operation a small quantity of cerebro-spinal liquid oozed out, the child meanwhile scarcely noticing what was going on. The oozing out of liquid continued slowly, and at no time was there enough leaving the sac so as to evacuate it entirely. There always probably remained from

four to six drachms of liquid in the sac. Nevertheless, the child was taken with convulsions the same evening, which continued until she was seen the following day. She then was pale; perspiration on her head; pupils a little dilated; not very active under the influence of light; large fontanel sunk, and not so large in circumference; sutures narrow, so as to give the impression that the bones had approximated each other; slight twitchings around her mouth; contraction of the flexor muscles of her hands and feet. Bowels costive, and urine scanty; pulse 120; respiration irregular and slow; sacral tumor not laterally collapsed, but the fissure perceptible. Handling the tumor did not aggravate the symptoms. It was impossible to gain any more particular knowledge of the exact nature of the contents of the sac, and especially of the ramification of nerves or medullar substance in its walls. This condition of things remained for a number of days, with the exception of the occasional occurrence of developed convulsive attacks, which again would be replaced by apparent quiet, at which time the child would sometimes take notice of what passed around her, and take a little food. The child died on the seventh day after puncture had been performed, the head growing as it were smaller and more solid from day to day; the pulse increasing in frequency during the last two days, and getting irregular at last, and respiration growing more irregular and slower than before. A post-mortem examination was not permitted.

135. Gerard S., æt. 6 years. *Luxatio Femoris.* The boy was presented but once in my absence. He had fallen sixteen months ago, and had been walking lame ever since. On the records I find a notice, that Prof. Bradley, who conducted that clinic and referred the case to my subsequent examination, suspected it to be one of luxation of the caput femoris into the sciatic notch.

136. James R., æt. 9 years. *Hæmorrhagia in Musculo Sterno-cleido-mastoideo.* Patient was looking around and upward after his kite, when he lost the power of turning to the other, left side. Slight swelling in the middle part of the right sterno-cleido-mastoid muscle, with very little pain on pressure. Treatment: Iodid. potassii, ℥ij.; glycerin., ℥ss.; liniment volat., ℥ss. M. D. S.: for external use.

137. Francis I., æt. 9 years. *Contractura ex Abscessu.* Patient had a large abscess three months ago, above the left scapula, and to the left of the vertebral column. It took several weeks to form and to break. Since that, he has been unable to move freely to either side, or to easily bend his head. There is a slight drawing in of the skin over the affected part, the layer of cellular tissue having disappear-

ed entirely, or being very thin. Skin not movable over the subjacent tissue. Induration of the whole region. There is evidently still exudation in and around the muscles. Treatment: Both passive and active exercise, and ℞.—Iodid. potassii, ʒij.; glycerin., ʒss.; linim. volatil., ʒj. M. D. S.. for external use.

138. Mary I. Th., æt. 10 months. *Myositis.* Middle third of the right thigh very much swollen and painful, the limb a little inflected. Skin very little affected, and movable over the larger part of the swelling. A small opening permits the sound to enter for about an inch, and a little pus to escape. Suppuration appears to be local only, and external absorbents tried. ℞.—Iodid. potassii, ʒij.; glycerin., ʒss. A fortnight after, the size and sensitiveness of the tumor the same; incision not permitted. Patient sent off.

139. Daniel F., æt. 4 years, 6 months. *Panaritium Subcutaneum.* The fourth toe considerably swelled and sensitive, both spontaneously and on pressure. Skin normal. Treatment, (by Prof. Bradley:) Tinct. iodin., externally.

140. William S., æt. 1 year, 4 months. *Panaritium.* The last phalanx of the right thumb much inflamed and swelled. All the tissues participate in the process. Treatment: Incision, to be followed by a solution of sugar of lead with opium.

141. William S., æt. 1 year. *Erythema Regionis Inguinalis et Scroti.* Inguinal region and scrotum erythematous, from urine, fæces, and coarse diapers. Treatment: Cold water.

142. James W., æt. 2 years, 6 months. *Talipes Varus Paralyticus.* Patient had a severe attack of convulsions when nine months old, which resulted in paralysis of both lower extremities. His right leg was soon restored again to normal action, while his left leg was partially paralyzed for a considerable time longer. The same occurrence then took place which we frequently meet with in cases of incomplete paralysis, viz., the flexor muscles overcame by their action the power of the extensors. Thus, the muscles depending on the anterior tibial nerve are still paralyzed, while the power of the posterior tibial is proportionally not much injured. Thus the club-foot in this case, with its slow development, and based on a previous disease of the nervous centre, is the result of paralysis. Treatment recommended: Faradization of the extensor muscles for some time, and tenotomy.

143. Albert B., æt. 7 years. *Talipes Equinus. Talipes Varus.* The former is on the right extremity, and has been the result of the boy walking on his toes for a long time, in consequence of his heel being sore. It is a mild case, as produced by bad habit only. The

other deformity is quite a counterpart to 142. Patient suffered from convulsions when six months old, was late in walking, and has always dragged his left foot. Moreover, the whole left inferior extremity is less developed than the right. The deformity, accordingly, has been observed to come on gradually, depending, as it is, on a disproportion between the nerve-power of the extensor and flexor muscles. Treatment recommended like that in the preceding case, with the addition of ℞.—Nitrat. strych., gr. j.; spirit. vini, ℥ss. D. S.: Ten drops, twice a day.

144. Walter H., æt. 8 months. *Catarrhus Meatus Auditorii Externi.*

145. Rosanna M., æt. 8 years. *Catarrhus Meatus Auditorii Externi.*

146. Mary M., æt. 9 years. *Otitis Interna. Deafness.*

No. 144 is a simple case of otorrhœa, as commonly seen in early infantile life. Patient has no teeth as yet, but his gums are swelled, the mucous membrane of his mouth and pharynx injected; his scalp shows the first beginning of eczematous eruptions, and the glands of the neck are swelled. Prognosis favorable. Treatment: Four daily injections (simple water injections preceding) of a solution of sulphat. zinci, gr. vj., in aq. ℥j. No. 145 had scarlatina four years ago, and has been suffering from otorrhœa since. Unexpectedly, the affection is localized in the external ear only. Tympanum is healthy, throat not affected, and no symptom of the internal ear having ever been affected. Hearing not impaired. The long duration of the complaint cannot be explained, except by its having been utterly neglected, the discharge acting over and over again as a new irritation. Treatment: Sulphat. zinci, gr. xxiv.; aq., ℥iv. M. D. S.: For external use. No. 146 is a case also depending on scarlatina, from which patient suffered three years ago. Hearing is very defective in the left ear; tympanum is gone, and the discharge, sometimes bloody, is seen to come from the internal ear. Prognosis highly unfavorable as to the recovery of hearing. Treatment: Mild solutions of tannic acid; to begin with, gr. iij. to water ℥j.

147. Isabella G., æt. 1 year, 2 months. *Stomatitis. Pharyngitis.* Mouth and pharynx injected; mucous membrane swelled; uvula and tonsils tumefied. From this cause the child has pain in swallowing, and a short cough, especially when in supine position. Fever moderate. Treatment: ℞.—Chlorat. sodæ, ℥iij.; aq., ℥v. M. D. S.: A tea-spoonful every two hours. This will be a good solution, the chlo-

rate of soda being, at a medium temperature, soluble in three or four parts of water, while the salt of potassa requires sixteen.

148. Catharine W., æt. 1 year. *Catarrhus Intestinalis*, from an unknown cause. R.—Subnitrat. bismuth, gr. vj.; cret. præpar., ʒss. M. f. pulv., div. in p. æq., No. xii. D. S.: A powder every two hours.

149. S., male infant, æt. 39 hours. *Defective Development of the Intestines.* The history of the case was given by the attendants in the following manner: The child had no evacuation of the bowels for the first twelve hours after birth. A medical man was called in, who removed some obstruction by means of his fingers from the anus, and gave an injection, whereon a string-like, hard, solid, whitish mass was removed through the anus. The child then was declared to be all right, and left. Nevertheless, no regular passage was had, but the patient evacuated a mass like that described, but less in quantity, several times. He commenced vomiting, however, bringing up a black substance, which was afterwards changed into a brownish or even yellowish-gray mass by the addition of milk, which the child would readily take from the breast. When the infant was presented he still looked well-developed; no deformity perceptible on any part of the body. Exhaustion began to show itself, from the somewhat collapsed face and the sunken fontanel. Abdomen not much inflated; only across it, below the liver, and a little downward to the left, an intestine was both seen and felt. It was inflated with gas, which appeared to be unable to escape. The rectum was very narrow, but could be explored to the length of the first finger, and no perfect impermeability found. The fæces removed last were pretty greenish, solid, about a fifth of an inch in diameter, and completely formed. Having no other means of diagnosis ready, the case was declared to be one of stricture of the intestine, somewhere between the colon transversum and rectum. The last evacuation, however, was submitted to a microscopical examination, and found to contain a uniform mass of cells, of middle size, with nuclei and some nucleoli. No fat, nor hair, nor cholesterine, nor large epithelial scales; thus the evacuation was set down as intestinal mucus only. On the next day the substance thrown up from the stomach was submitted to a microscopical examination, and found to contain, besides milk, some crystals of cholesterine and a large number of large epithelial scales. The case was then put down as one of complete impermeability of the intestine, as there were constituents of meconium above, but not below, a certain point.

The elements of meconium were not sufficiently known before the

year 1858, when Prof. Förster, of Gottingen, submitted it to a very careful examination. The principal results of his investigations are these: that it does not consist, as it was formerly believed to do, of bile, and of the mucous and epithelial cells of the intestines, but mainly of vernix caseosa and the pigmentous matter of the bile. In their largest part, both vernix caseosa and meconium contain obdurated pavement epithelium; but the former has no coloring matter, and the latter less fat. Besides the constituents mentioned already, there is in the meconium hair from the surface of the body just like that found, sometimes even without a microscope, in the vernix. Stomach and intestines have no pavement, but cylindrical epithelium only; nor are hard and large scales, like those of meconium, found on the mucous membranes of the mouth and œsophagus. The fat contained in the meconium takes its origin from the general surface; cholesterine, which is found in meconium, has probably been a part of the bile. Thus we may safely conclude that the principal part of meconium is vernix caseosa, which has been swallowed. Its water is rapidly absorbed, and partially excreted by the kidneys. Perhaps some part of the fat, also, is absorbed, by the follicular glands of the small intestines. Thus, there is a singular transformation of matter in fœtal life, the fœtus swallowing the excretion of his surface, and again assimilating perhaps part of what had been removed. As yet, the contents of the fœtal intestines have not been submitted to a sufficient number of examinations to admit of a comparative estimation of the constituents as to the relative age of the fœtus. Acephali have no meconium; formerly, this fact was attributed to the absence of bile, in consequence of absence of liver; but this malformation would account for the absence of coloring matter and cholesterine only.

Patient died with the symptoms of exhaustion, when seventy-two hours old. Post-mortem examination was made nine hours after death, but abdominal cavity only opened. Rectum very narrow, as described above. Above, the colon appeared only about a fifth of an inch in diameter, but could be inflated up to the vermiform process; no air would pass the valve. A tube was then introduced through a small opening above the ileo-cœcal valve, and inflation attempted from above downward; but no air would pass the valve, thus showing a perfect impermeability. The whole colon and rectum have a length of about fifteen inches. Stomach is normal; perhaps a little larger than usual. Duodenum and upper part of the intestine, to a length of about fourteen inches, are very much dilated, and terminate in a very large *cul-de-sac;* no opening being found into

the remaining part of the intestine, which all of a sudden became of a decidedly diminutive size, of perhaps a fifth of an inch in diameter. This is the size of the intestine all through its length down to the valve, with the following exceptions. As stated, there is no connection whatever between the dilated upper portion of the intestinal canal and the suddenly contracted part, both of them ending in a *cul-de-sac*. Below this, about two inches from this first impermeability, the coarctated intestine again ends in a *cul-de-sac*, after which, to a distance of eight lines, no intestinal cylinder whatever is found, the mesentery hanging free in the abdominal cavity. Then, again, a small intestinal cylinder, of nine or ten lines in length, is found closed on either end. Again, the mesentery without its intestinal appendix for about eight or nine lines. Again, an intestinal cylinder of the same length. Again, absence of intestine for a similar distance. A third intestinal cylinder of the same length, closed on either end, follows this; and again, at last, free mesentery for about half an inch. Then, finally, the intestine fairly begins again, uninterrupted in its lumen, and unchanged as to its diameter of about a fifth of an inch, and measures, down to the ileo-cœcal valve, twenty-two inches. Thus, the whole length of the intestine, including, altogether, two inches of mesentery not accompanied with intestine, is about four feet and a half, exhibiting in its course, besides the dilatation of the upper portion, a nearly equal coarctation of the lumen, the colon being a little larger than the rest, and the rectum not so narrow as the colon itself, two perfect impermeabilities; and beyond these four total interruptions of the course of the intestinal canal, the free intervals being, in the average, eight or nine lines in length.

Liver, spleen, kidneys, and bladder perfectly normal. Both of the kidneys contain beautiful specimens of the so-called uric infarcts.

Cases like the above are more than merely rare. Perhaps there is only one, if any, on record, in which there was, as it were, such a systematical anomaly; the only case that may be compared with that given above being described by Küttner, of Dresden. In his case, the jejunum ended in a *cul-de-sac;* then there was a piece of intestine, of three inches in length, ending in a *cul-de-sac* on either side; further, a second of the same description; finally, a third one, five inches long. Then, at last, the colon, commencing with a *cul-de-sac* above, and ending in a normal anus. Cases of simple interruption of the lumen, complete atresia, on a single locality, are even quite rare, (except in the rectum;) the anomalies found by Küttner, and in the above reported case, stand alone as extraordinary instances of imperfect development

150. Adolphus F., æt. 11 years. *Inflectio Radii.* Patient suffered from a fall two weeks ago. The fracture of the left radius was contracted in about the middle of its shaft. Very little care was given to it, and the bone healed in an obtuse angle of about 150°. Union had taken place when presented, the callus being large and massive. Treatment: Radius fractured, under chloroform, and splint.*

(To be continued.)

Transactions of the Medical Society of the County of Kings.

REGULAR MEETING, SEPTEMBER, 1860.

Enlarged Ovary prolapsed into the Recto-Vaginal Cul-de-Sac, and obstructing Labor—Rupture of the Uterus. By Dr. J. C. HUTCHISON.

Dr. H. presented the specimens, with the following history: On the afternoon of September 15th, he was requested by Dr. Frankum to visit with him a German woman, thirty-five years of age, who was in labor with her second child; the first having been born, after a natural labor, six years before. The pains commenced at 4 P. M. on the previous day. Dr. Frankum saw her first on the 15th, at 7 A. M. He found the os uteri tolerably well dilated, the bag of waters protruding, the vertex presenting, and the pains quite severe. He also detected a tumor between the rectum and vagina. Dr. Hutchison was called in the afternoon, and on making a vaginal examination, detected the tumor, which appeared to be about the size and shape of the half of a large apple. It could not be moved on account of the pressure of the head from above, and during the pains, which were quite severe, the head was fixed firmly against it. Her pulse was 90, and regular; vertex at superior strait in first position. As she was restless and desirous to sleep, was ordered full opiate. Dr. H. saw her again at 12 M. on the following day, and found the os uteri well dilated; the pains were severe, but the head still pressed against the tumor, and had not advanced at all. He now applied the forceps, and after prolonged traction, was unable to move the head downward. At 3 P. M. Drs. Isaacs, Mason and Mitchel were added to the consultation. The pains had now nearly subsided; pulse 100; sounds of fœtal heart easily recognized. The Cæsarean section was proposed, but was overruled, and after mature consideration, it was decided to bring her under the influence of chloroform as soon as uterine action became more decided, and apply the forceps. At 5.30 P. M. vomiting

* In former part of this report, read, *passim*, Sulph. quin., for Sulph. cinch.

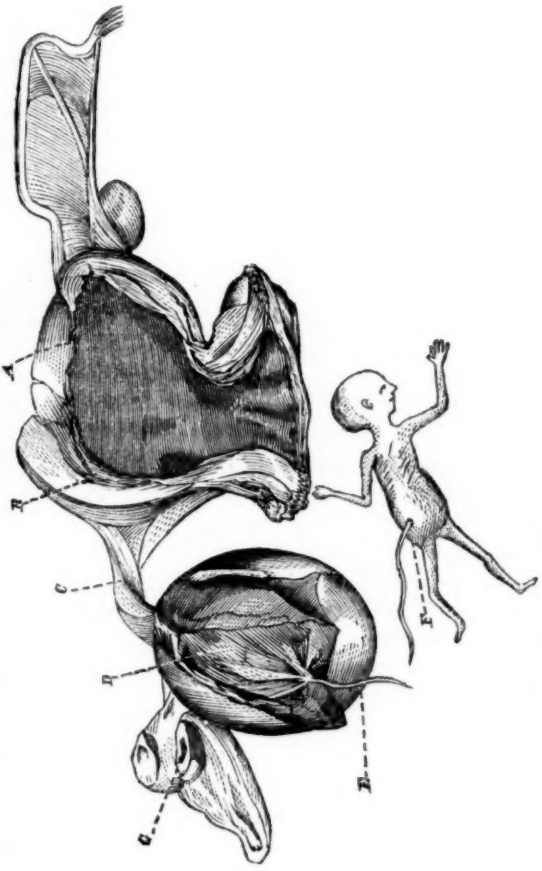
commenced; the skin became cold, and she complained of great prostration; the pains had not returned. At 9 P. M. she was pulseless at the wrist, and had severe pain in the umbilical region. On vaginal examination, Dr. Frankum found that the head had receded; he could barely touch the scalp with the tip of his finger. She died seven hours subsequently.

A post-mortem examination was made about eight hours after death. Present, Drs. Isaacs, Mason, Mitchel, Hutchison, Frankum, and others. The child was found in the abdominal cavity on the right side of the uterus, and the placenta on the opposite side. The uterus was firmly contracted. On examining the specimen, it will be seen that there is a rupture of the anterior portion of the neck of the uterus, extending into the vagina. The tumor was found to be the right ovary, which had become enlarged, and had fallen into the *cul-de-sac*, between the rectum and vagina. It contained bone, hair, and a soft solid, resembling stearine in appearance. A bony tumor projected posteriorly from the body of the pubis to the distance of three-fourths of an inch. All the pelvic diameters were diminished, and, according to Dr. Isaacs, who assisted in the examination, it had very much the appearance of a male pelvis. Dr. H. thinks this would have been a proper case for hysterotomy.

DR. J. C. HUTCHISON *presented a Specimen of Fallopian Pregnancy —Death at Third Month from Hæmorrhage, caused by Rupture of the Tube, with the following History:*

On the 18th of March, 1858, I was requested by Dr. H. Teller, of this city, to visit in consultation with him, Mrs. K., a married lady, 22 years of age, and the mother of three children. I learned that at 5 P. M. on the day before, Mrs. K. was suddenly seized, while walking across the floor, with severe pain in the uterine region, attended with a feeling of faintness, which caused her to fall. Dr. T. saw her soon afterwards, and found her in a fainting condition, with a cool and pallid skin, vomiting occasionally, but complaining of no particular pain. She supposed herself three months advanced in pregnancy; had observed no peculiar symptoms; no lateral enlargement. She remained in the condition above mentioned during the night, occasionally rallying somewhat, and when I saw her, at 8 A. M. on the following morning, she was pulseless at the wrist; lips blanched; surface cool; some tenderness on pressure over lower portion of abdomen. Being unable to refer the symptoms to any other cause, we came to the conclusion that an extra-uterine pregnancy existed, that a rupture had taken

place, and the patient was now dying with internal hæmorrhage as a consequence. Death took place about half an hour after I saw her.



A, Cavity of Uterus, showing decidua. *B*, Decidua laid over cut surface of Uterus. *C*, Right Tube, twisted on its Axis, to bring the situation of the Ovum into view. *D*, Placenta in situ. *E*, Cord, separated in removing Fœtus from Abdominal Cavity. *F*, Fœtus. *G*, Corpus Luteum of Right Ovary, laid open.

Autopsy, seven hours *post-mortem*. On opening the abdomen, about one quart of coagulated blood was seen among the intestines in the pelvic region, in the midst of which, after it was removed, we found a fœtus of about the third month, with a portion of the cord attached, that had been broken from the placenta in removing the clots. A rupture was now observed in the right Fallopian tube, about its middle posteriorly, through which the fœtus had escaped into the abdominal cavity; the placenta still remaining in the tube, the cord hanging

through the opening. When the uterus was laid open, the cavity of its body was found to be lined with a deciduous membrane, and the canal of the cervix filled with bloody mucus. It was considerably enlarged, and its parietes were somewhat augmented in thickness, the ruptured opening in the tube having been enlarged by an incision; the placenta was found of normal size, its maternal surface closely adherent to the walls of the tube, the villi of the chorion, and also the umbilical vesicle, being distinctly recognized. The fœtus was plump, with a rosy integument. The condition of the uterus and its appendages is very well shown in the plate, somewhat less in size than the specimen.

REGULAR MEETING, OCTOBER, 1859.

Bright's Disease in a Child Twenty Months Old. By DR. WM. HEUSER.

Anna Meyer, 20 months old, was born of healthy parents, as a remarkably strong and healthy child. I knew her from this early period, the mother being taken with puerperal endometritis of great severity and long duration, during which the child had to suffer a great deal from imperfect nutrition and want of care. The mother, however, after recovery, was able to resume nursing, and the child was doing tolerably well till the latter part of the winter, when she was afflicted with whooping-cough, in consequence of which she entered upon the summer in a rather weak state of health, and fell very soon in a kind of protracted diarrhœa and frequent gastric derangements. These disturbances, however, did not reach a degree that medical help was called for, and were ascribed merely to the influence of the season. She was weaned three months ago, having at that time already eleven teeth, and her appetite in general being uncommonly good; she kept in pretty good condition until July, when the family, having hitherto occupied the second story, removed into a basement, which bears evidence of considerable moisture and dampness. From this time a marked decline in the child's health took place; she had several attacks of violent diarrhœa, alternating with constipation, and in spite of the continuance of a pretty good appetite, the child got a more and more pale and sickly appearance. She never had any exanthematous disease, except prickly heat in a moderate degree.

On the 5th of August the child became worse; diarrhœa increased; appetite impaired; feverish in the night; cross and ill-humored during the day; which symptoms continued till the 17th, when the mother

was first aware that the child had not passed any water during the last twenty-four hours. Until that time no disturbances in this function had been noticed; no pain nor distress of any kind being observable, the child, on the contrary, appearing on that day a little better, and resuming eating. Some domestic medicines were resorted to, which proving unsuccessful, a physician was consulted, who prescribed a remedy containing turpentine. This was used the following day, but did not produce the least discharge of urine.

On Sunday, the 19th, I saw the patient, with the following symptoms: No excretion of urine; no pain; no distress; no conamina to pass it. Abdomen pretty much distended, chiefly in both the hypochondria, giving on percussion all over a tympanitic sound, even in the region of the bladder, which did not appear to be distended, and could be pressed upon and handled without causing the least sign of pain. The region of the kidneys remarkably full; painful on pressure; the dull sound of percussion decidedly extended beyond normal; slight œdematous swelling all over the skin, chiefly in the face, around the eyes, and on the lower part of the back; skin dry and very pale; cheeks and lips red, showing a kind of brick-red color. Temperature in general diminished, except the hands, which were rather hot on the points of the fingers, and together with a frequent and irritated pulse, proved some feverish reaction. Tongue slightly coated; no signs of teething on the gums; appetite tolerably good; the child was just eating a piece of bread; bowels moderately loose. Sleep in the night pretty good; the child, although a little cross, occasionally played during the day, and in general did not behave like a very sick child; now and then a little cough, but no other symptoms from the organs of the chest.

I considered the case as one of Bright's disease of kidneys, and ordered removal from the basement, warm baths, wrapping in flannel, kal. acetic. with sem. lycopod. in emulsione; calomel, gr. ½ every four hours; diuretic ointment and flax-seed tea for a drink.

On the 21st, in the morning, the child had passed a small quantity of urine, fifteen to twenty drops, as the mother states, without any pain or straining. The pain in the region of the kidneys, upon pressure, was increased, also the anasarca. There was a diffuse fluctuation in the abdomen, but indistinctly perceptible, on account of the great flatulence. The child was brought to the Long Island College Hospital, where the catheter was applied by Dr. Chapman and myself, but no urine was found in the bladder.

Prescription: Two leeches over the kidneys; cremor tartaris, with diuretic tea; calomel continued, in ¼ gr. doses.

August 22d.—The child had bled freely from the leeches; the blood appeared very pale and watery. She was worse in every respect, and considerably weakened. Anasarca increased; skin very pale, and perfectly waxy; no urine. I placed a piece of lint between the labia, in order to discover any escape of water that might take place, without being noticed. Calomel omitted; treatment continued; nourishing diet.

August 24th.—No change in the leading symptoms; total suppression of urine; strength somewhat recovered; for some hours a free perspiration.

Prescription: Tinct. cantharid., gutt. i., every three hours; injections with turpentine.

August 26th.—In general, the same state. One copious fluid passage, with a strong smell of urine. The piece of lint between the labia had remained perfectly dry. Anasarca rather decreased; no nausea, no vomiting; not the least tendency to coma; stomach less distended; the child had frequently passed wind; some feverish reaction continued, without a decided character. The same treatment.

August 28th.—No urine, no coma. The child is fully sensible, expressing her wants by talking and calling her attendants. Nausea and inclination to vomit. No evacuation of the bowels since yesterday. Short and heavy breathing, frequent sighing, but no signs of effusion in the chest. The cantharides discontinued; in their place, infus. rhei, with bicarbonate of soda.

August 29th.—The child had during the night several dark-yellowish passages, with great relief; towards morning she slept comfortably. Breathing much easier; stomach soft, and pain less; some appetite; anasarca in the face less; kidneys still sensitive upon pressure. Pulse 100. She is in a somewhat dozing condition, but fully sensible; the least thing arouses her for some minutes; she will not allow her mother to leave the bedside. Some fluid stools, with tenesmus. No urine. Treatment continued.

August 30th.—Since yesterday evening the child is much worse; restless during night; constantly moaning; very feverish. This morning pulse 140, tongue dry, lips parched, some cough, short and heavy breathing, some dullness on percussion on both sides of the chest. In the afternoon, Dr. Mason saw the child in the same condition. Quinine was ordered, and counter-irritation over the kidneys.

August 31st.—The child very low, but fully sensible; she would

not allow herself to be touched or examined without expressing her increased discomfort by crying, calling for her mamma, etc. Pulse and respiration indicating the beginning agony. At 12 o'clock in the night she had passed a few drops of urine, which were discovered on the lint, and towards morning she had, under considerable straining, another discharge of about 1½ oz. of urine, which, unfortunately, was mixed up with a copious evacuation from the bowels, which she had a short time previous. The urine separated from the fæcal matter, on careful examination, did not contain any albumen. Under the microscope, it was found to contain blood-globules, but none of the usual fibrinous epithelial or fatty casts. At 10 o'clock the child died, in my own and Dr. Chapman's presence, under the symptoms of gradually abolished vitality. A few moments before she looked around, with an expression which gave evidence that not even then her consciousness had entirely left her. No spasm nor convulsion was to be observed.

The post-mortem examination was made by Dr. Chapman and myself thirty-six hours after death. The little dead body was not much emaciated, and presented the same waxy appearance as during life.

On opening the abdominal cavity, we found the intestines distended with gas, very anæmic, but otherwise healthy; the liver natural in size and appearance; the peritoneum healthy; in its cavity about four ounces of a colorless serum. The bladder was quite empty. The *right* kidney was considerably enlarged and lobulated, the tunica propria easily separated. The whole kidney was of a dark-brown reddish color, intermixed with paler gray-yellowish spots. All around its convexity a number of smaller and larger dark-black and livid spots were observed, evidently coming from little extravasations of blood, and giving this portion of the surface quite a variegated appearance. On section, a dark smeary blood profusely issued from every point, which seemed to undergo a kind of glutinous coagulation in contact with the air. When it was wiped off, the cortical substance appeared congested, of a reddish color, with white yellowish spots diversified, which gave it a somewhat granulated appearance; the malpighian bodies were filled with blood, and presented a dark-red and really purplish color.

The *left* kidney was very different in size from the right one, and much below the normal standard. It presented, even before it was disturbed from its natural position, a strong yellowish hue, all the surrounding tissues being infiltrated with fat. On section, the whole kidney presented a more or less homogeneous mass, of a whitish-yellow

color, the demarcation between both the substances being so ill-defined, that indeed nothing was left of the structural peculiarities. The pelvis renalis contained a small quantity of a pale-red glutinous fluid, which had not the least smell of urine.

The chest, now opened, was found to contain in both sides clear serum, in nearly equal proportions, amounting to about four ounces in all. The lungs were healthy, except a crude tubercular mass of about an inch in diameter, in the upper lobe of the right lung. Heart and pericardium were normal; in the latter a trivial amount of serum was effused.

Under the microscope, it was proved that the fatty degeneration which had reached so high a degree in the left kidney had also commenced in the right one, wherever the whitish and yellowish discoloring had taken place.

Remarks.—With reference to the nature and extent of the morbid changes in the kidneys, which the post-mortem examination has revealed in our case, I consider the diagnosis of Bright's disease fully established. The autopsy, however, for itself, presents nothing of particular interest, the affected organs showing none but the customary changes in the second and third stages of this disease. I therefore entered into the description of them only so far as the diagnosis was concerned. But, as to the course the disease took in this case, the symptoms attending it, and its final termination, some striking peculiarities are offered, about which I would like very much to hear the opinion of the Society. First—What has brought on this disease in so young an infant? Was it the whooping-cough that caused the first hyperæmia in the kidneys, or had the prickly heat anything to do with it? Or was it merely the influence of the cold and the dampness of the basement to which the child had been subjected since the 1st of July? In this latter respect, I might say that the mere aspect of the left kidney, which is entirely degenerated into a fatty mass, must give the conviction, that the disease was of an earlier date and of longer standing than at the period mentioned. For, supposing the important changes in question to be the result of a sudden acute and flagrant disease, how could this fail to produce during life such symptoms as to attract the attention of the parents, whom I know to be careful and intelligent people, who would not have allowed their only child to suffer with anything like real disease, without caring for medical advice? It therefore appears very probable that the disease began in the left kidney a long time, perhaps many months ago, and taking a chronic and insidious course, arrived finally at the entire degenera-

tion of this organ; while the *right* kidney, remaining all this time in a state of comparative integrity, kept up its functions, and prevented by this way the development of more serious secondary disturbances, and more characteristic symptoms. The frequent attacks of diarrhœa alternating with constipation, of which mention is made in the history of the case, represent all the symptoms that so far came under observation. Perhaps the *left* kidney was already entirely out of function when the family moved into that unhealthy basement, by which new and detrimental influence the *right* kidney, predisposed and slightly affected as it probably was, was drawn suddenly into an acute and destructive process of disease, which led so soon to a perfect suppression of urine, and at the same time, to the hydræmic condition of the blood. Hydræmia, there can be no doubt, caused death in our case by its natural consequence, the gradual abolition of vitality. But how it happened that, by a total suppression of urine of so long duration, an uræmic intoxication was not produced, at least not in such a degree that the corresponding symptoms in the nervous system, as coma or convulsion occurred, appears hardly explainable, and is somewhat inconsistent with the ordinary views on uræmia and its natural development. Frerichs, the most distinguished writer on this subject, pronounces death by uræmia the natural termination of Bright's disease, and explains the fact that not more than one-third of deaths are really caused by it, by referring to the frequency of complications which destroy life, before uræmia has time and chance for its development. But this exception does not apply to our case, where every opportunity was afforded, as far as time and absence of complications are concerned. What prevented the uræmia in this case? Was it the age of the patient? From analogous experience, the answer to this question is rather difficult, for, although Bright's disease has been sometimes observed in much younger children, the observations appear to be very scarce, and differ in their main features so much from this case, that they do not admit of any available comparison.

Some of them were attached to scarlet fever, others to organic diseases, one to a scalding, and most of them were marked with uræmia. I, myself, have seen an idiopathic disease of the kidneys in a little boy one year old, where death was preceded by coma and convulsions. Have the watery evacuations from the bowels, one of which actually had a strong smell of urine, acted vicariously in our case, and freed the blood from the urea? I am very sorry that I had not the opportunity to subject them to a reliable chemical analysis.

But I fear to weary you by any more hypothetical remarks; allow

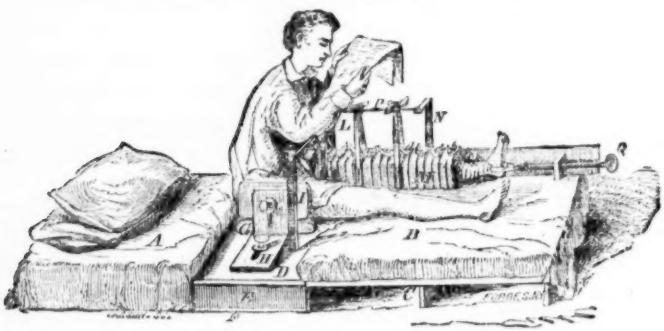
me, however, to call your attention once more to the main symptom of this case, which seems to exceed everything on record. I mean the total suppression of urine, which lasted for full fifteen days, interrupted only on the fifth day, by a discharge of a few drops of urine.

As to the reliability of the observation, there can be no doubt, in spite of its general difficulty in so young a child. I refer in this respect to the precaution taken by myself in placing a piece of lint between the labia, which, frequently examined, was always found in its place, and perfectly dry; and further, to the fact that besides the mother, two other quite competent members of the family were day and night in attendance, waiting with painful anxiety for a drop of urine, as the only sign of relief for the poor child from its unnatural, and therefore alarming, condition. I feel confident that the distinguished professional gentlemen whom I introduced to the case agree with me in declaring it fully authentic. Without, however, setting it up for a medical curiosity, the case seemed to deserve a record, the more because it is in accordance with other recent observations, by which the doctrine of suppression of urine and uræmia is more or less affected.

As to the treatment pursued, I protest against criticism, our attention being fully absorbed by the desire to overcome the principal symptom, or, as a friend yesterday remarked, to make water for the child.

REGULAR MEETING, NOVEMBER, 1860.

Fracture-Bed. By Dr. J. H. HOBART BURGE.



Mr. President and Gentlemen—The apparatus which I now proceed to exhibit was devised especially to answer the indications of extension and counter-extension, in cases of fractured femur. It was the result of many months' study and of almost numberless experiments,

in all of which my brother, Dr. Wm. J. Burge, now of Taunton, Mass., took an equal part with myself. The apparatus is so very simple in its construction that it requires no description whatever. You see every part at a glance, and each part explains itself to every practical surgeon better than words could do it.

I shall therefore not detain you, except in brief terms, to state our objections to the very first apparatus ever used, before the introduction of this. I allude to the long, straight splint of Desault, modified by Physick, Buck, and others. These objections are,

1st. That the counter-extending pressure falls heavily upon the groin, (a most sensitive part,) causing much pain to the patient and also anxiety to the surgeon, on account of the liability to excoriation and sloughing, and the consequent necessity of moving the perineal strap to the other groin, and perhaps of removing it altogether, in which case a permanently shortened limb is the almost inevitable result.

2d. The strap around the waist, which, though it be not tight enough to impede respiration, is a great restraint, and to one of nervous temperament almost insupportable. The patient must swallow both food and drink while in an absolutely supine position, and can perform no voluntary motion of the trunk whatever. Indeed, in a fracture of both thighs, this confinement becomes a truly serious evil.

3d. That the hips of the patient sink in the bed, and are very liable to move away from the splint, and thus throw the limb out of the proper line.

A simple inspection of the apparatus now before you will at least convince you that *it* is liable to none of these objections. I desire, in the next place, to call your attention to the fact that the verdict of the profession has been given in favor of the straight position, in a large majority of cases. The venerable Mott, whose praise is in all the ranks of the sons of Esculapius, did indeed say, only three years ago, that if his femur should chance to be broken, he should prefer to have it treated on the double-inclined plane; but it should be recollected, in this connection, that he had had no practical experience of Crosby's Adhesive Plaster Extension, which renders the straight position so far preferable as to rob controversy upon the subject of all interest. Again, you will not fail to notice that in this apparatus no part of the body is confined, except the injured limb and the pelvis; and the latter not so absolutely but that the patient can, at any time, relieve an irksome position, while at the same time it is so secure as not to be liable to lateral motion, or to sink in bed. This

freedom from unnecessary restraint—the patient being permitted to sit up *ad libitum*—is of itself a *life-preserving* and *limb-saving* feature of this apparatus.

The next advantage to be observed is, that no pressure falls upon the groin, but that the nates and tuberosities of the ischia, which are by nature especially fitted for pressure, are the parts subjected thereto. Lastly, the provision here made for relieving the bowels without disturbing the patient or his limb, has been found of great practical value. Having elsewhere called attention to numerous other cases of accident and disease in which this apparatus is found useful, I shall not descant further upon its advantages.

The details of seventeen cases treated therein have been published, and are within the reach of all. A larger number have since been treated, and will be made public so soon as I shall be able to collect and arrange the minutes. The results have been not only satisfactory, but highly gratifying to all parties.

I will at this time only ask your further indulgence while I read a brief report of three or four cases treated by members of this Society. The first, which, to connect it with the series already published, I shall call Case 18, occurred at the Brooklyn City Hospital, in the service of Professor Enos. Dr. A. D. Wilson, House Surgeon, kindly transcribed for me the following record, remarking at the same time that the case was one of considerable interest, and should soon receive a fuller report. Dr. Wilson had never seen this apparatus in use, yet he applied it in the neatest manner, which fact I mention to show that a previous acquaintance therewith is not necessary to success.

Case.—James Thurston, æt. 45, unusually healthy, a moderate drinker, admitted July 5th, 1860, with compound fracture of left femur, at junction of middle and lower thirds, caused by getting limb caught between the spokes of his cart-wheel. The wound in soft parts, occasioned by protruding bone, was one inch and a half in length, jagged, and situated posteriorly. Profuse venous hæmorrhage, shortening one inch. Was put on the Burge apparatus, which allowed of free access to the wound, without in the least disturbing the limb or the patient. Just six weeks after the accident, apparatus was removed. Union of fragment firm; external wound all but closed, shortening one-half inch. Applied coaptation splints, and ordered rest in bed. Three weeks later, patient allowed to go about the wards on crutches. Has been able to sit up to his meals since the first two weeks after the accident; is now in perfect health.

Cases 19 and 20 I will give in the words of Dr. John A. Brady, of East District, as addressed to myself.

"John Understillen, aged about 35 years, German, while attempting to stop a runaway team, was thrown to the ground, and sustained an oblique fracture of the femur at about the middle of the shaft. When I first saw him, there was, by actual and careful measurement, three and three-quarter inches shortening. A few days after, with your assistance, I placed him on your apparatus. He was decidedly the meanest and most irritable man I ever had anything to do with, giving way every few minutes to frightful paroxysms of rage, tearing the dressings from the limb, and throwing them at his wife and children. He even tore off the wooden side-braces from your apparatus twice, and would have continued doing so had we not replaced them with iron. About the twentieth day, he tore off all the dressings, and when I reached him I found the limb three inches shorter than the other. The same afternoon, with your help, I put the fracture up again, and managed to get him well with three-fourths of an inch shortening. He is a policeman; does duty all the time; drills once a week; does not wear a high shoe; walks and runs as well as he ever did, and does not limp at all; as good a result as we could have had in so muscular and powerful a subject, under the most favorable circumstances. I attribute this wonderfully good result solely to the use of your apparatus. I have treated since for a physician of this place an oblique fracture of the upper third of the femur. The subject was a willful, impatient girl, 13 years of age. She has recovered, with no perceptible shortening. I have no hesitation in expressing the opinion that your apparatus is the best I know of for the treatment not only of fractures of the thigh, but of oblique, complicated, and compound fractures of the tibia.

The last case which I shall bring before you is one of compound comminuted fracture of the tibia and fibula, treated by O H. Smith, M.D., of Brooklyn, Eastern District, and concerning which he writes me as follows:

Mr. ———, aged 35 years, on the 8th of September, 1859, took a seat on a soda wagon for the purpose of riding home from the ferry. While seated on the front of the wagon, one of the horses kicked him, breaking his left leg just below the middle, producing a compound comminuted fracture of the tibia, and a transverse fracture of the fibula. He was brought to my office, and I applied a roller and temporary splints. The soft parts were much lacerated, and portions of broken bone were protruding through the flesh. At the end of eight

days, and while there was still considerable inflammation around the crushed bone, and tumefaction of the soft parts, I put the patient on your fracture-bed, and applied gentle extension to the limb. My dressings or appliances by which I made extension were firm, adhesive straps, passing from each side of the ankle to the foot screw. On the following day, I made considerable extension by turning the screw, and brought down the limb to quite its natural length, and each succeeding day, for a week or more, I turned down the foot-screw sufficient to compensate for the natural stretching of the dressings, &c. At the end of four weeks there was no union or firmness of the tibia, while the fibula was pretty well united. At seven weeks the tibia looked still unpromising, the broken fragments remaining loose and irregular, while a sero-purulent discharge was issuing from the limb at the seat of fracture. At this period I applied a firm roller to the limb, leaving an opening for the discharge of pus, relaxed the whole extension, and depended upon the fibula to prevent shortening. In fourteen weeks from the accident the tibia had become quite firm, and the discharge of pus had subsided, when I applied a starch bandage to the limb, sent the patient into the open air on crutches, and he recovered rapidly. In five and a half months he went to New York and resumed his business. I have given you an extended history of this case, first, because, from the nature and extent of the injury, it was a difficult case to treat; second, because the result was highly satisfactory, there being no perceptible shortening; and lastly, because your apparatus performed its part so well in keeping up extension for so long a time, with so little discomfort to the patient. This last fact, in connection with the facility with which the patient can attend to the calls of nature, and the entire freedom with which the body can be flexed upon the pelvis, gives your instrument, in my opinion, a most valuable advantage over all other similar instruments now in use.

MONTHLY SUMMARY OF FOREIGN MEDICAL LITERATURE.

By Dr. L. Elsberg.

1. *On the Action of Chloroform upon the Blood.* By A. Ernest Sansom. (Archives of Medicine, No. VII., p. 170.)
2. *Cases of Purulent Deposit in the Urine.* By Dr. Alex. Lindsay. (Glasgow Medical Journal, April, 1861.)
3. *On the Certainty of Cure of Eczema.* By Prof. Hebra. (Wiener Spitalszeitung; Glasgow Medical Journal, April, 1861, p. 107.)

4. *A Case in which two ounces of the Wine of the Seeds of Colchicum were accidentally taken, and which relieved a Gouty Diathesis.* By JOSEPH BULLAR, M.D. (Edinburgh Medical Journal, March, 1861.)

5. *On the Mode of Elimination of the Metal Manganese when employed Medicinally.* By WM. TURNER, M.B., etc. (Edinburgh Medical Journal, April, 1861.)

6. *On some of the Therapeutical Uses of Indian Hemp.* By J. RUSSEL REYNOLDS, M.D. (Archives of Medicine, No. VII., p. 154.)

7. *On the Use of Alcoholic Stimulants in Hospital Medical Practice, with Illustrations from the Records of the Royal Infirmary of Edinburgh.* By W. T. GAIRDNER, M.D. (Edinburgh Medical Journal, May, 1861.)

8. *A Short Account of Two Fatal Cases of Heat Apoplexy which occurred in August last on board the Screw Steamer "Colombo," on her voyage from Suez to Aden.* By ROBERT LITTLE, M.D. (Edinburgh Medical Journal, May, 1861.)

9. *On the Reparative Process in Human Tendons.* By WILLIAM ADAMS, F.R.C.S. A Review. (Edinburgh Medical Journal, May, 1861.)

10. *On the Insufficient Development of the Stomach, and the Diagnosis thereof.* After Dr. G. SONS, by Dr. PLOSS. (Schmidt's Jahrbücher der In-und Ausländischen Gesammten Medicin, No. V., 1861, p. 194. Issued April 30, 1861.)

11. *Cure of Prolapsed Rectum by Subcutaneous Injection of Sulphate of Strychnia.* By Prof. DOLBEAN. (Bulletin de Thérapeutique, LIX., p. 538.)

12. *Description of a French Instrument for Effecting Reduction or Reposition of the Umbilical Frenis when Prolapsed, with Cases illustrative of its Successful Application.* By J. G. WILSON, M.D. (Glasgow Medical Journal, April, 1861.)

1. According to the author, the effect of the mingling of liquid chloroform with the blood is an almost total solution of the red corpuscles. Under the microscope, a nearly homogeneous yellow-tinted field presents itself, with here and there only the faint outline of a red blood-corpuscle. The white corpuscles, on the other hand, appear to have been uninfluenced. To trace the most subtle effect of feebler influences, M. Sansom used in these investigations frog's blood. Placing a little undiluted on a glass slide, he exposed it for only about two seconds to the vapor proceeding from an open bottle of chloroform at the ordinary temperature of the air; having covered the blood with a slip of thin glass, he examined it under the microscope, and, as the result of his examinations, he believes the progressive changes on the blood-corpuscle to be the following:

(1.) Corrugation of cell-wall; alteration of shape; coherence.

(2.) Solution of cell-wall.

(3.) Coalescence of cell contents.

To observe the effect of chloroformization on circulating blood, he exposed the web of a frog's foot on a frog-plate under the microscope,

and then sprinkled a few drops of chloroform upon the damp cloth in which the frog was wrapped.

"The first change noticed in the circulation was an increase of its rapidity. In about twenty seconds the capillaries had dilated to nearly twice their normal size. Then the flow became slow, the corpuscles manifested the tendency to aggregate, and in some instances to assume that shape which chloroform promoted in them out of the body. These cohering blood corpuscles toiled along the capillaries in an interrupted current. More chloroform being given, the tendency to cohere became greater, the current slower. Ultimately, stasis of the blood occurred, (first in the larger vessels,) and death.

The most noticeable changes induced by chloroform on the circulating system are therefore:

1. Acceleration of the flow;
2. Dilatation of the capillaries and the blood-vessels;
3. Alteration in shape of blood-discs and tendency to cohere;
4. Stasis of the blood.

These facts have, I believe, a great influence on the theory of anæsthesia. That 'narcotism is suspended oxygenation' is a doctrine receiving every day greater confirmation. I believe that the action of chloroform is directly upon the blood-corpuscle; that thereby its capability of receiving oxygen is impaired, and its faculty of stimulating the various functions of life subdued; in other words, that the phenomena of chloroformization are due, not to the agency of a circulating poison, but to the influence of an altered blood."

2. Dr. Lindsay reports five interesting cases in which he found pus in the urine, apparently as a complication of gonorrhœa. The headings of his cases are: 1. Large Deposit of Pus in Urine, following Gonorrhœa; No Symptoms of Local Irritation; No Constitutional Disturbance. 2. Purulent Deposit in the Urine Supervening on Gonorrhœa; Severe Local Symptoms. 3. Severe Hypogastric Pain following a Sudden Suppression of a Gonorrhœal Discharge; Retention of Urine; Pus in Urine. 4. Gonorrhœa Pus in Urine on Cessation. 5. Pain in Left Iliac Region, extending over Bladder, and Paroxysmal in Character; Previous Gonorrhœa; Return of Symptoms of Pus in Urine.

The treatment uniformly curative, with one exception speedily, and in all cases safely, may be seen from the following extract from the report of the first case: "After clearing out the bowels, he was ordered to have one drachm of the bals. copaiva in mixture, night and morning after meals, to avoid all stimulating drinks, and to restrict

himself to light diet." In some cases the balsam should be given in half-drachm doses. The first four of the above cases related to men; the subject of the last was a woman, whose husband had contracted gonorrhœa four months previously. "The discharge was so trifling that he thought there was little risk" of infecting his wife. In this last case Dr. L. "cautiously began administering the balsam of copaiva, beginning with doses of one-half drachm twice a day. With this was conjoined ten minims of aromatic spirits of ammonia, and an equal amount of tincture of hyoscyamus. Under this treatment she slowly improved, and in three weeks was free from all annoyance. Some months after the same symptoms returned. Similar treatment was employed, and they soon passed away. Up to date there has since been no return, and she is otherwise in good health."

As to the nature of the morbid change on which the symptoms depended, Dr. L. can offer no explanation. "Systematic writers do not seem to include, as incidental to gonorrhœa, complications similar to those described. It is true they may have been overlooked, yet equally certain that among the more recent writers they are not mentioned. This is the more curious, seeing that in my practice they have been met with more frequently than other affections of the urino-genital organs, that have received not only a special notice, but even a lengthened description. It is possible, however, that my experience may have been exceptional." In conclusion, Dr. L. remarks that pus alone, unmixed with mucus or any other inflammatory product, appears to him the guide for the employment of the remedy which in his hands, and also in those of others to whom he mentioned it for similar cases, were surprisingly successful.

3. One has the satisfaction, Professor Hebra observes in his clinical lecture, of knowing that we can always cure eczema, however long it may have continued, although in some inveterate cases depending upon a dyscrasis, or upon internal causes, there may be considerable difficulties in the way. As in most other diseases of the skin, the treatment should be purely local; internal measures being limited to the rare cases in which the eczema has been produced by a previously diseased condition of the economy, or when it is combined with some other affection. In the great bulk of cases internal means, such as mercury, antimony, iodine, purgatives, sarsaparilla, &c., are superfluous and mischievous. Arsenic is the only one of such means which exerts any influence in obstinate cases. Ordinarily, however, it is of no use, and its employment should be limited to the few cases which manifest es-

pecial obstinacy; the local treatment in these also not being at the same time neglected.

Cold water, in its various modes of application, is of great importance, combined with other means, in the treatment of eczema. Employed alone it is far too tedious, and frequently not sufficing in its operation. It only aggravates the malady when applied in *eczema simplex*, arising from excess in secretion, as *e. g.* in the axilla, between the buttocks, &c. Starch, whether alone, or mixed with oxide of zinc, (starch ʒj., zinc ʒiij.) is, on the other hand, an excellent application when the eczema arises from the friction of two cutaneous surfaces, or from excessive secretion, as in the axilla, under the breasts, the scrotum, buttocks, &c. Oxide of zinc (ʒj. to ʒj. of lard,) sulphate or acetate of zinc, alum (ʒj. to ℔j. of water,) red or white precipitate (6 to 12 grains to ʒij. of lard,) are of good service in acute eczema or in chronic, when there is but slight infiltration, and the disease prevails only over a limited extent. When, however, there is considerable infiltration in chronic eczema, these means do not suffice, and then the almost indispensable *schmierseife*,* by reason of its slightly caustic action, becomes the most preferable remedy. Its mode of employment varies according to the degree and extent of the eczema. When there is but slight infiltration, a rubbing with it once or twice a day is sufficient; but when the infiltration is more considerable, a more frequent application is necessary, and even epithems composed of it may be required. When we have thoroughly rubbed the skin with the soap, until excoriations and red points have been produced, the surface should be washed and cold applications laid on until next rubbing. This procedure must be continued as long as the moisture and itching and the infiltration of the skin continue, and until the frictions no longer give rise to heat and excoriations of the skin. The soap must then be replaced by cold applications, and the treatment terminated by the employment of tar.

In many chronic cases, with great infiltration, the soap does not suffice, and we must have recourse to a stronger form of potash, viz., caustic potash, one drachm dissolved in two drachms of water. A pencil of charpie is dipped in this and well rubbed into the diseased parts for some minutes. These are then washed, and cold applications are kept constantly employed. One or two such cauterizations usually suffice, and when more are necessary they should not be repeated

* For an account of this "*schmierseife*," or *sapo viridis*, vide *Medical Times and Gazette*, 1860, vol. i., p. 224.

oftener than once a week. Carefully applied, the caustic gives rise to no cicatrix, but the practitioner must himself always undertake its application. It is a very painful procedure, and is not often required. Cauterizing with strong acids is to be avoided, as it causes great pain and gives rise to scars. The application of the nitrate of silver is of no avail. *Tar* is in its way just as useful a remedy as the soap, the time for its application being when the moisture and itching have ceased, and exfoliation has commenced, *i. e.*, when *eczema squamosum* is present. It may be used either alone or mixed with equal parts of cod liver oil, and should be applied by means of a brush once or twice a day, carefully avoiding washing the parts or allowing water to come into contact with them. As long as any redness or desquamation continues, the tar must be repeated. Sometimes, when the application of the tar has been premature, moisture and itching are observed at certain spots, and the preliminary treatment has then to be resorted to again. Some individuals cannot bear the tar at all, it giving rise to severe inflammatory action. An ointment of acetate of lead or oxide of zinc should in such cases be substituted. *Cod-liver oil* is a valuable external application, and by its aid alone we are able to cure the eczema, when this has not lasted very long and the infiltration is not very considerable. It is also an excellent adjuvatory to the treatment by *schmierseife* and cold applications, as flannels soaked in the oil may be kept bound over the diseased parts during the night. Employed alone the treatment is very tedious, and is objectionable on account of the disagreeable smell and befouling the linen which it gives rise to. Taken internally it does not exert the slightest influence on eczema.

4. A man, whose father and grandfather had been gouty, who himself had had his first attack of gout at school, when 14 years old, and after going to India, and returning at the age of 25 years, suffered for 10 years severe attacks; got cured by taking two ounces of wine of colchicum-seeds, which his servant mistook and bought him for a black dose. The latter he afterwards took in two portions, about an hour and a half apart, but they produced no action on his bowels. He continued perfectly well, took a hearty breakfast at 12 o'clock, and not until 4 in the afternoon, while enjoying his accustomed drive, *i. e.*, seven hours after the accident, did he feel sick; then he had violent vomiting for eight hours, stopped at last after applying a liquid blister to the pit of the stomach. The next day, except being very nervous, he was quite well; and excepting (which is very rare and far between) occasional swelling of his foot—relieved on applying locally a little olive oil and leaving off stimulants at the time—he has

never suffered from gout since, being now 58 years of age, and 34 when this accident happened, and though he seems to have continued high living. Fatal poisoning has been reported from doses of one ounce, an ounce and a half, two ounces, five ounces, and eighteen ounces, and Dr. Bullar concludes that the patient's safety in this case "depended on his hereditary and strongly-marked gouty diathesis, giving him a toleration of colchicum; just as, in pneumonia, tartarized antimony can be taken in such doses as would poison the healthy; and in delirium tremens, poisonous quantities of opium and digitalis have been administered without loss of life. The power of the remedy seems to be spent in combating the diseased process." Sir Henry Holland's opinion that colchicum may be given so as to be *preventive* as well as *curative* in gout, is strengthened by this curious case.

5. Without denying the possibility of a partial elimination of manganese taking place by the liver, Mr. Turner shows that the kidneys freely eliminate the metal. He examined the urine of two persons laboring under diabetes, who had been taking for three weeks the permanganate of potash medicinally.

"Forty ounces of urine were evaporated in a water-bath, to the consistence of a thick syrup; to this aqua regia was added, and the mixture heated in a porcelain crucible, so as to burn off the organic matter; nitric acid was then added to the incinerated mass, and the mixture boiled for some time, and then filtered. The excess of acid in the filtrate was next nearly neutralized by the addition of carbonate of soda; and, on pouring into it a solution of sulphide of ammonium, a copious dark-colored precipitate fell down. As the dark color of this precipitate was due to the presence of sulphide of iron, which interfered with the proper application of the manganese tests, it was necessary to effect the separation of the two metals. This was done by dissolving the precipitate in hydrochloric acid, and then adding an excess of carbonate of lime in the cold, which threw down both the iron and the phosphates. The liquid was then filtered, and, to the clear solution, sulphide of ammonium added, when a flesh-colored precipitate, indicative of the presence of manganese, fell down in considerable quantity. As this test alone was not considered sufficiently conclusive, I fused a portion of the flesh-colored precipitate with carbonate of soda in the outer blow-pipe flame, when the green-colored manganate of soda was produced. A second portion of the precipitate was then fused with borax in the outer flame, when the amethyst red color, so characteristic of the presence of manganese compounds, was formed."

Mr. T. regards it probable that the manganese existed in the urine as chloride or sulphate, or perhaps as both.

6. "Of the intimate action of cannabis we know no more than we do of that of henbane, morphia, or hemlock; neither do we know less; whereas its evident effects are as conspicuous and as definite as are the properties of any one of those medicines. Hemp is a soporific, anodyne, and antispasmodic; it relieves pain and spasm, and it conduces to sleep; in doing either of these, it usually promotes diaphoresis and diuresis; whereas it does not leave behind it headache or vertigo; nor does it affect the appetite, nor confine the bowels.

"I have never seen any ill effects from its exhibition, when the dose has been duly regulated, varying from gr. $\frac{1}{6}$ to gr. $\frac{1}{2}$ for the child, and from gr. $\frac{1}{3}$ to gr. $1\frac{1}{2}$ for the adult. In two instances an overdose was taken by mistake. An elderly lady had the medicine prescribed for neuralgia of the fifth nerve, and taking more than the proper quantity, suffered for three hours from vertigo and dimness of sight, with great difficulty in standing. A young lady, whose violent headaches had been much relieved by doses of gr. $\frac{1}{3}$, repeated a dose too soon, felt almost immediate freedom from pain, and started with some friends to a whitebait dinner at Blackwall. Unaccustomed to the steamboat, to whitebait, and to wine, she shortly began to be extremely lively in conversation, then to 'clip her words,' and suffer from confusion of vision; but whether in this case the result was due to previous headache, to the steamboat, to whitebait, hock, or Indian hemp, I could never satisfactorily determine."

The author then mentions more or less detailed accounts of 22 cases, and concludes by placing these successful and unsuccessful cases in juxtaposition. We may gain some hints from the following table as to the class or type of malady upon which Indian hemp exerts its remedial action.

I.—MENTAL AND EMOTIONAL DISTURBANCES.

SUCCESSFUL.	UNSUCCESSFUL.
1. Deranged cerebral circulation, with pain and delirium.	14. Hypochondriasis.
2. Incipient insanity after yellow fever.	15. Temporary recurrent religious melancholy.
3. Senile ramolissement.	16. Insomnia with diabetes.

II.—PAINFUL AFFECTIONS.

4. Nervous irritation from carious teeth.	17. Sciatica.
5. Probable tumor of brain.	18. Hysterical hip.
6. Probable thickening of spinal meninges.	19. Hysterical headache.

7. Hæmorrhage at roots of 8th and 9th nerves.
8. Syphilitic meningitis.
9. Hemicrania.

III.—AFFECTIONS OF MOTILITY.

10. Meningitis.
11. Intense cerebral congestion.
12. Obstinate nervous vomiting.
13. Recurrent convulsions.
20. Epilepsy.
21. Epilepsy.
22. Epilepsy.

Indian hemp has been of no service in those affections of mind, sensation, or motility, which are simply functional in their character; or which, at all events, have no established morbid anatomy. On the other hand, it has afforded notable relief, in cases where undoubted organic disease existed, viz., in examples of congestion, softening, tumor, meningitis, and hæmorrhage

This medicine appears capable of reducing over-activity of the nervous centres, without interfering with any one of the functions of organic or vegetal life. The bane of many opiates and sedatives is this—that the relief of the moment, the hour, or the day, is purchased at the expense of to-morrow's misery. In no one case to which I have administered Indian hemp have I witnessed any such results.

The value of the medicine appears to me enhanced, not because it fails to act in some groups of cases, but because this limitation of its action will, I trust, enable us hereafter to apply it with scientific selection, and thus with that power which is the highest to be reached by art, viz., the prediction of results. Further, therapeutic agents have been the means by which questions have been so asked of Nature, that some of the most prized of her secret truths have been revealed in answer; and these have operated both directly in regard of the art of healing, and indirectly, also, by their contribution to that growing science of pathology, upon which, as its only sure foundation, all therapeutical success, beyond that which is merely accidental or blindly empirical, must rest.

7. The laudable object and example of Dr. Gairdner in publishing the statistics of the consumption of alcoholic stimulants by the hospital patients under his charge, should certainly stimulate all hospital physicians to prepare accurate records of the actual expenditure of alcoholic stimulants. In how many various ways this would lead to extremely valuable results, scientifically, morally, economically, as well as therapeutically, we need not here point out. We quote the Table of

AVERAGE DAILY CONSUMPTION OF ALCOHOLIC STIMULANTS, PER PATIENT, DURING FIVE SUCCESSIVE YEARS, IN THE ROYAL INFIRMARY, WARDS 4, 15, AND 16.

	1856.	1857.	1858.	1859.	1860.
GENERAL WARD, Males—					
Wines, (ounces)	0·158	0·465	0·710	0·928	0·739
Spirits, (ounces)	0·056	0·312	0·287	0·184	0·454
Malt Liquors, (pints)	0·039	0·040	0·025	0·053	0·058
GENERAL WARD, Females—					
Wines, (ounces)	0·446	0·534	0·799	1·498	1·200
Spirits, (ounces)	0·295	0·312	0·223	0·164	0·510
Malt Liquors, (pints)	0·064	0·069	0·048	0·061	0·048
FEVER WARD, Females—					
Wines, (ounces)	0·715	1·256	1·734	1·725	1·140
Spirits, (ounces)	0·069	0·083	0·346	0·052	0·135
Malt Liquors, (pints)	0·023	0·029	0·135	0·069	0·027

As to the results, Dr. G. avers they are in two particulars most unexpectedly opposed to all his previous impressions. While he fully believed that the use of alcoholic stimulants in his hands had been at least stationary, if not decreasing, the table shows that there has been a nearly uniform increase. Again, it appears that among the women in the general ward the consumption of wine, during the entire period of five years, is decidedly greater than in the corresponding male ward; that of spirits but little less, and that of malt liquors at least as much. As the two wards are very much alike as regards the class of cases admitted, and have been during very nearly the whole period subject to exactly the same administration, it is hardly possible that this fact can be accounted for otherwise than by the apparent need for the exhibition of stimulants, and the demand for them having been actually greater among the women than among the men. Dr. G. adds: "I am quite certain, at least, that there is nothing in the personal convictions of myself or my assistants to account for the fact of so liberal a comparative expenditure of wine on the female side, inasmuch as all my own prejudices and those of most other people were assuredly in the opposite direction, viz., to the effect that women ought to require, and in the better class of society do require, a less quantity of alcoholic stimulation than men when suffering under disease, and especially acute disease."

Many other points of Dr. G's article we would willingly quote, but hardly can do them justice. Dr. G. by no means goes the entire length of the late lamented Dr. Todd, and gives stimulants, "if at all, only in very moderate quantities along with the food, and in general, as an aid to the digestion of food; the only exceptions being n the case of persons largely and habitually dependent upon stimu-

lants from old and formed habits, and in a comparatively small number of acute cases for a very few days, sometimes only a few hours, to help the system over a dangerous crisis, or to co-operate with other needful remedies, such as antimonials, in pulmonary inflammation."

8. The following remarks accompany the report of the cases: "Heat Apoplexy" may, therefore, in my opinion, be considered as the result of pressure exerted upon the cerebro-spinal matter, by the intra-vascular blood on the one hand, and by the expanded cerebro-spinal fluid on the other, this being concurrent with irritation of the sympathetic system, produced in certain constitutions by some peculiar condition of the atmosphere, which cannot be explained.

Treatment founded on these suppositions ought to be just as it was, viz.: cold to the head; derivation by counter-irritation to the lower extremities; the administration of ice and of turpentine enemata, with V. S. to a moderate amount. Should I happen to meet with another such case, (as in this delightful and temperate climate of Singapore is not likely,) I should feel disposed to try the effect of full and repeated doses of Fleming's tincture of aconite, or of the tincture of the white hellebore, as prepared by my friend Dr. W. Wilkinson; and this with the view of subduing the excitement of the nervous system, and reducing the inordinate action of the heart.

9. Mr. Adams has enjoyed the rare opportunity of dissecting, in the recent state, fifteen cases in which subcutaneous tenotomy had been performed; so that, from the ample field that he has had for pursuing his investigations, the conclusions to which he arrives are entitled to receive the attentive consideration of surgeons and pathologists. He describes the process of repair under four heads:

(1*st.*) *Immediate results of the operation.*

The effects of subcutaneous division of the tendo Achillis in the human subject are described under this head; and it is pointed out that the amount of separation between the divided ends of the tendon depends upon the capability of the muscular fibres to contract and draw the upper portion upward, and of the flexibility of the ankle-joint as the foot is restored to its natural position. Mr. Adams is disposed to ascribe a considerable amount of influence to the cellular sheath of the tendon—by which he means the loose textured areolar tissue which closely invests and surrounds it—in connecting indirectly the divided ends. In this respect he differs from Mr. Paget, whose pathological views on this subject he, on the whole, however, adopts and confirms.

(2*d.*) *Commencement and nature of the reparative process.*

Increased vascularity of the structures at the seat of operation, especially of the cellular sheath of the tendon, commences the process, followed by a gradual infiltration of a blastematous material between the fibrous elements of this sheath. After a short time, numerous small oval nuclei appear in this blastema. Mr. Adams, however, does not tell us from whence these nuclei proceed; whether they take their origin in the blastema itself by the aggregation of granules, or whether they arise by the division of nuclei pre-existing in the surrounding textures. This is a point that he does not appear to have attended to.

We have long been of opinion that the material effused in the reparative process for the union of divided tendons affords a favorable locality for the study of this subject; and that a set of experiments, carefully performed, might throw considerable light upon it. In the course of time the blastema assumes a distinctly fibrous appearance, so that it gradually assimilates in its structure to that of the old portions of the tendon, the divided ends of which it connects.

(*3d.*) *General appearance and structure of the newly formed connective tissue, or new tendon; and its ultimate disposition.*

Mr. Adams points out, that although the new tendon, under the microscope, presents a distinctly fibrous appearance, yet that, to the naked eye, it can be readily distinguished from the old tendon by its grayish, translucent appearance, and by the property which it possesses as spreading out like a bit of serous membrane, rather than splitting up into fibres, when teased out with needles. He has noticed this peculiarity in a human tendon three years after operation. He relies upon this appearance as a powerful argument against the "linear cicatrix theory," which has been advanced by Mr. Tamplin, and supported by others of his colleagues at the Orthopædic Hospital. We are certainly at a loss to understand upon what sound physiological or pathological principles such a theory can be upheld, and we agree with Mr. Adams in the remarks which he makes upon it.

(*4th.*) *Influence of the divided extremities of the old tendon; junction of the new with the old tendon; re-formation of a separable sheath on the surface of the new tendon.*

Under this head, the rounding off of the cut ends of the tendon, and the dovetailing of the new material with the split fibres of the old tendon, and, as a final step, the more or less perfect reproduction of a separable sheath on the surface of the tendon, are pointed out.

In the chapter on the reparative process in the tendons of rabbits, the author merely confirms the account which Mr. Paget has given of the process of repair in the same animal.

We ought not to omit to state that the book is illustrated with a number of lithographs and wood-cuts; and that, in an Appendix, a *résumé* is given of the writings of various authorities, both in this country and abroad, who have treated of the subject of the reparative process in tendons after division, either by subcutaneous or open wound."

10. *Rayer* mentions abnormal smallness of the stomach in all its diameters, in his account of malformations. But of the authors on Diseases of Children, *Billard* is the only one who speaks of malformations of the stomach at all, and he omits the mention of congenital abnormal smallness. To denote the imperfect developments, the author prefers the name of "Hypogenesis" to the designation after Breckel, "Agenesis." He ascribes not only anatomical, but also clinical interest and importance to this condition, since it may well be diagnosticated during life. Geoffroy St. Hillaire, Meckel, and Sappey have reported cases where the stomach was only the size of the small intestines. Nothing accurate has, however, been known hitherto of the normal measurements of the stomach in suckling infants. The author first of all, therefore, measured 23 stomachs of infants at least 40 days old, who themselves measured, in whole length, from 46 to 50 centimetres. The measurement yielded the following:

The horizontal diameter from the left to the right measured from	7–8	centimetres.
The vertical diameter, from the middle of the lesser to the middle of the greater curvature	4–6	"
The length of the lesser curvature	5–7	"
The length of the greater	10–14	"
The thickness of the walls	2–3	millimetres.

The author then reports two cases, one of which he observed alive in the Children's Hospital, at Bordeaux, while the other became known only on dissection. Both children refused the breast; that of the mother, as well as of different wet-nurses, being satisfied with a few swallows. On trying to introduce the milk by means of a spoon, they could not be got to take more than five or six spoonsful, though they had no difficulty of swallowing. Vomiting was absent in both cases, and all the organs were otherwise healthy. The infants became more and more emaciated, and one died 14, and the other 24 days old. The autopsy revealed the following size of the stomach:

	In the First Case.	In the Second Case.
Horizontal diameter	3 centimetres.	8 centimetres.
Vertical diameter	3 "	3 "
Lesser curvature	2 "	3 "
Greater curvature	6 "	8 "

The thickness of the walls of the stomach was in both cases from one to two millimetres. The length of the child in the first case was 46, in the second 52 centimetres.

These two cases do not belong to the class of contraction of the stomach, described by *Meckel*, which occurs after too long abstinence, and which, according to *Rilliet* and *Barthez*, is known by a great number of folds along the greater curvature. *Langier* describes a diminution of the stomach in consequence of diminished feeding, and in attendance on chronic dyspepsia. But the author believes his cases to have been original malformations, not acquired diminution of the stomach; want of appetite, and non-introduction of food, were effect, not cause, of the condition of the stomach. The refusal of the breast, and of all nursing and feeding, leads, according to the author, to the suspicion of hypogenesis of the stomach, whenever no other cause for such refusal may be found, especially when the external conformation of the body is healthy, excretion from the bowels normal, and the want of appetite persistent from birth. In cases of œsophagitis, imperforation of the œsophagus, other congenital malformation of the stomach or obliteration of any part of the intestinal track, the infants also refuse to nurse; but in such cases, there is always vomiting, which in hypogenesis of the stomach is absent. In cases of constipation of the newly-born, where there may likewise exist this want of appetite, purgatives yield relief of the bowels and restore appetite; while in hypogenesis of the stomach, the stools are unfrequent and small, but still regular, and the want of appetite continues in spite of purgation.

11. Dolbeau reports two cases of prolapsed bowel, (one in a girl 3 years old, the other in a boy 5 years old,) both of which were cured by the subcutaneous injection of sulphate of strychnia, 30 centigrammes to 30 grammes of water. The canula was introduced one centimetre to the right of the anus to the depth of 0.5 centimetre, and 10–11 drops of the solution injected.

12. Dr. Wilson describes an instrument consisting of two finely-polished whalebone rods, one straight, and one with a hook on the end, so adjusted by connecting silver rings that one slides upon the other; this sliding movement being by means of a stop, limited to about an inch, so as to prevent their separation when in use. He refers to the peril to the infant of the accident, of the difficulty of its treatment, and lauds the new instrument very highly, adding a couple of cases in which he has successfully used it.

But our object in giving Dr. W's article a notice here is less to present this simple and ingenious, and perhaps frequently efficacious

instrument, than to call the attention of our readers, and especially our trans-Atlantic readers, to the Postural Treatment of Prolapsed Cord, introduced by Dr. T. GAILLARD THOMAS. It consists in—*Firstly*, Placing the patient on her elbows and knees; *Secondly*, Retaining the cord, which is easily done, owing to the falling of the viscera and fœtus forward, (it will often recede spontaneously;) and, *Thirdly*, Maintaining the patient in this position until one or more pains force the head so firmly into the strait that the cord cannot again escape.

REVIEWS AND BIBLIOGRAPHY.

A Practical Treatise on Military Surgery. By FRANK HASTINGS HAMILTON, M.D., Prof. of Military Surgery, &c., in Bellevue Hospital Medical College, &c., &c. New York: Baillière Brothers. 1861.

The publication of this work was announced in the last number of the MONTHLY. "The purpose of the volume is to supply information upon those points in Surgery, Medicine, and Hygiene which, as having relation especially to military and naval practice, are usually not considered in general treatises." In accordance with this plan, the author gives in separate chapters the needed information upon the examination of Recruits, the General Hygiene of Troops, the Bivouac, Accommodation of Troops in Tents, Barracks, Billets, Huts, &c.; Hospitals, either permanent, regimental, field, or flying hospitals; the Preparations for the Field; the Hygienic Management of Troops upon the March; the Conveyance of Sick and Wounded Soldiers, by hand litters, panniers, horse litters, and wheeled ambulances. Chapter IX. treats of Gun-shot Wounds. In the account of the treatment of gun-shot wounds by simple water dressings, copious extracts are made from a treatise by Alphonse Amussat, to show the great efficacy of this plan and its superiority over others. This treatise quotes, among other authorities, the thesis of M. Malgaigne upon irrigation in surgical affections, and gives the conclusions of this distinguished surgeon, as follows:

"'First, cold irrigations are an excellent antiphlogistic when employed in superficial wounds or inflammations; but even then they are not infallible, whilst in deeper wounds and inflammations they only mask the symptoms, and ought to be rejected.

"'Second, continued irrigations are only suitable for the hands and feet, and perhaps the forearm, but my facts are not sufficient upon this last point to decide; and even in these regions recourse should not be had to them except in the most severe cases. I give them an almost absolute preference in gun-shot wounds, but for other wounds I prefer intermittent irrigations.

"'Third, in all cases the parts undergoing irrigation should be carefully covered with compresses, so as to exclude the air.

"'Fourth, simple water appears preferable for continued irrigations, but for intermittent irrigations I choose *eau blanche* (plumbi diacetas, &c.) in cases of wounds, and a solution of sulphate of copper or wine in cases where no wound exists.

"'Fifth, the temperature must *vary* according to the sensations experienced by the patient when the water is first applied; and in all cases we must abridge the duration of the irrigations as much as possible.'

"I believe with M. Malgaigne, that irrigations are not absolutely infallible any more than other means employed in surgery; but, with the numerous facts which I possess of lesions located in almost every part of the body, forearm, leg, and knee, I cannot agree with him in the limits which he has placed upon its use. As to the duration of the irrigations, I think, where a moderate temperature is suitable, they may be continued a long time with advantage; and I am reminded, among others, of a case, which I will soon publish, where a cure was effected of a severe wound of the leg, by irrigations of water at a temperature of 20° C. (68° F.) continued more than two months."

In this chapter are recorded many curiosities of recoveries from severe wounds of vital organs, such as the case of the man Gage, who was shot through the head with a tamping-iron, three feet seven inches in length, one inch and a quarter in diameter at its largest end, and weighing thirteen pounds and a quarter. The wound occasioned by it is described as commencing just anterior to the ramus of the inferior maxillary bone of the left side, taking a direction upward and backward towards the median line, passing through the left anterior lobe of the cerebrum, and making its exit at the junction of the coronal and sagittal sutures; lacerating the longitudinal sinus; extensively fracturing the frontal and parietal bones; breaking up a large portion of the brain, and protruding the globe of the left eye from its socket by nearly one-half its diameter.

In 1860 this man was still living, and in the enjoyment of good health, with no impairment whatever of his mental faculties.

The remarkable case of Gen. Shields is also noticed in this book. This gallant officer was wounded in the chest at Cerro Gordo, the missile entering between the fourth and fifth ribs of the right side, about an inch and a half from the sternum, and emerging between the

sixth and seventh ribs of the same side, about an inch from their junction with the vertebræ. He recovered perfectly, and was afterwards engaged in several battles during the campaign in Mexico. It is presumed, from the direction of the wounds of entrance and emergence, that both pleuræ and the substance of the right lung were wounded. These instances of recovery after severe injuries of vital organs are not rare. Numerous cases are recorded by Professor Eve in his work on Surgical Cases. An extraordinary instance of recovery from a gun-shot wound, the ball being found in the wall of the right ventricle of the heart eighteen years after the accident, will be found in the MONTHLY for September, 1860.

Amputations constitute the subject of the tenth chapter, and it is considered under four divisions: 1, What conditions of the limb in army practice demand amputation; 2, The point at which the amputation is made; 3, The method of amputation; and 4, The period of time at which the amputation ought to be made. This chapter contains much important matter upon the topics discussed, stated clearly and concisely. The employment of anæsthetics in amputations and other surgical operations, after gun-shot injuries, is the title of the next chapter. The author weighs carefully all the evidence as advanced by others in favor of the use of anæsthetics, and notwithstanding the authority of Baudens, who says that they had no fatal accidents from its use, although during the Eastern campaign chloroform was employed thirty thousand times or more, he gives his own belief and conclusions as follows:

"Anæsthetics are of inestimable value in their efforts as remedial agents, and in their power to extinguish sensibility, temporarily, and especially during the performance of severe surgical operations; but we prefer ether to chloroform, as being the least liable to destroy life, and we would never employ ether when the system was greatly prostrated by disease, or by the shock of a recent injury, unless the patient exhibited an unconquerable dread of the pain of the operation, or the operation was likely to prove exceedingly painful."

The concluding chapters are upon hospital gangrene, dysentery and scorbutus. They present nothing particular, other than that they give in a few paragraphs the prevailing views in relation to these plagues of the hospital and the camp. We think, however, they are deficient in a clear statement of the nature of the affections as we now understand them. Their pathology is not given, and the uncertainty of our knowledge of the pathology, and the insufficiency of our therapeutics, is too apparent in the course of these chapters.

The work has not a dull page in it. There is no dry detail, but facts are stated plainly and forcibly, reasons are given briefly and frankly, and the result of experience in the preparation of the soldier for the field, the care of him in camp, and the treatment of the sick and wounded, whether upon the field or in hospital, is here summed up in a few short chapters. Altogether, the perusal and study of the work has given us much satisfaction.

On Diabetes and its Successful Treatment. By JOHN M. CAMPLIN, M.D., F.L.S. From the second London Edition. New York: S. S. & W. Wood. 1861.

This little volume of 87 pages, 12mo, consists of a short paper reprinted from the "Medico-Chirurgical Transactions," with a sketch of the various opinions relative to the nature and treatment of diabetes. The first part is a history of the author's own case, and is pleasantly entitled "On the Juvantia and Lædentia in Diabetes." The treatment employed by the author in his own case, and which he claims to have applied with great success in many other cases, is mainly dietetic. Bran bread figures most particularly, and a formula for the manufacture of bran cakes is added to the volume. The plan was suggested to him by Dr. Prout, but the bread made from the ordinary bran acted so powerfully upon his bowels that he was forced to discontinue it in this form. The author perceiving the effect of the bran, proposed to have it made into a fine powder, and he had a mill made for that purpose, so that by grinding the bran and carefully sifting it, he has avoided the action of the coarse bran, and has succeeded in making a flour from which a cake is prepared, which he has used for years with the best results.

The second part of this work relates to the pathology of diabetes. The author had considered the views of Dr. Prout as correct; he agreed with him in considering the change of amylaceous matters into sugar to take place in the stomach and primæ viæ, and his treatment of his own case was founded upon these views. The author is still disposed to believe that, in many cases, the gastric juice may be so changed as to resemble the saliva in its properties, and that sugar may be absorbed independently of the liver. In confirmation of this, he quotes in a note the experiments of Brown-Séquard, which go to show that, in the normal state, starch is to a certain extent converted

into sugar in the stomach. In opposition to this, he gives the views of Bernard upon the glucogenetic properties of the liver. The more recent researches of Dr. Pavy, with their conclusions coinciding in a great measure with those of Bernard, but differing in some important respects, are briefly stated, and the legitimate practical deductions are therefrom made.

This short monograph presents to the profession *in petto* much that is desirable to know. In a few pages the physiological pathology of this disease, as at this day understood, is put before the profession, the practice founded upon the views stated, and an illustration drawn from the records of the individual experience of the author of the results of the treatment upon himself and other striking cases.

The New American Cyclopædia: A Popular Dictionary of General Knowledge. Edited by GEORGE RIPLEY and CHARLES A. DANA. Volume XII. *Mozambique—Parr.* New York: D. Appleton & Co. 1861. 8vo, pp. 788.

The spirit of war, so prevalent now throughout the length and breadth of our land, has put a check, to a certain extent, to the pursuits of literature and science. Medical professors have resigned the duties of their professorial chairs; men of science have suspended their investigations; and literature itself is overlooked in every department, except that which relates to military tactics and the science of offence and defence. This is no more than could have been expected from a people whose love for their country and its full privileges is inordinately great. Still, we are happy to find that some of our publishers are enabled to go on with the works undertaken years since, whose arrival the reading public awaits with anxiety, about the time they have been promised. The Cyclopædia, whose design is so catholic, has won its way into general favor as the handy-book of reference for all classes in society, and we hail the appearance of the twelfth volume, in these stirring times of war, as an assurance that both editors and publishers are determined to fulfill all they promised when the first volume made its appearance.

The present volume evinces an increased amount of care on the part of the editors. It is true that, in the department of contemporaneous biography, many names are introduced altogether unknown to fame, that might be of importance in special treatises like those of

Vaperaud and Allibone, but could, without any injury, be omitted in a general dictionary. Still, we find so much that is of interest, so much that is accurate and fresh, presented in a style sufficiently condensed to suit this active age, that we continue firm in our opinion, formed from an examination of the first volume of this Cyclopædia, that it is one of the most useful works that a professional man can find to place on his book-shelves, and that Americans should be proud that our own talent and enterprise have furnished it to the world. The paper and typography of the book are of superior character, and do credit to those who have the detail of its mechanical execution in charge. L. H. S.

TRANSLATED FROM THE FRENCH, EXPRESSLY FOR THE MONTHLY.

Lectures on Diphtheria. (Egyptian Disease.) Delivered at L'Hôtel Dieu, Paris. By M. TROUSSEAU.

(Translated by the Editor from La Clinique Médicale de L'Hôtel Dieu, of M. Trousseau.)

(Continued from Vol. XV., page 468.)

*Nature of Diphtheria, Contagion, Alteration of the Blood, Albuminuria.**

GENTLEMEN—When M. Bretonneau wrote his *Traité de la Diphthérite*, medicine, or at least French medicine, was under the influence of the physiological doctrines of Broussais, the theory of inflammation dominated pathology, and the element of inflammation in a disease, whatever it might be, was the only one to be taken into consideration. Pinel had, nevertheless, shown that, in the different organic tissues, inflammation was subjected to very manifest modifications, and in this respect the illustrious author of the *Nosographie Philosophique* threw a great light upon the history of diseases, and gave the spirit of observation a new impulse. M. Bretonneau going farther than Pinel, in his turn, showed that the difference in the inflammatory alterations, and in the phenomena which accompany them, does not only depend upon the specialty of the tissue affected; he showed, by publishing his remarkable works upon diphtheritis and dothin-enteritis, that the specificity of the inflammation, much more than its intensity, much more than the nature of the tissue, which was the seat of it, influenced the change produced in the functions by every inflammatory lesion; it is, said he, to the specificity of the inflammation that the duration, severity, and the danger of most pyrexias is due.

The disease which we study is no exception to the absolute rule laid down. In inflammatory angina, in croup, we see only the angina, the laryngitis, the inflammation which it is necessary, above all, to com-

* We omit the lecture on *The Different Localizations of Diphtheria*, which, in the work from which we translate, precedes the present lecture.

bat by antiphlogistics. Doubtless, the inflammatory element plays its part; but this part, far from being the principal, is altogether secondary, absolutely the same as in variola, rougeola, syphilis; in many other diseases, it is subordinate to the nature of the cause which prevails and impresses upon it its special character.

There is, however, an essential difference to be noted between diphtheria and the diseases we have just named, in that in the former greater heed must be given to the local affection than in the latter. If, in variola, for example, we do not pay attention to the pustules, if, at least, we pay attention to them only with regard to the diagnostic and prognostic signification which we may draw from them, if we do not regard them at all in respect to the course of treatment; such is not the case with diphtheria. We may compare, indeed, what takes place in this case with what takes place in the case of malignant pustule, in which, by attacking directly the local affection, we cut short the progress of the general disease, of which this affection was the first manifestation. In the same way, in diphtheria, by combating energetically the first manifestation, we may sometimes check the progress of the disease, and prevent the ulterior manifestations. I shall return to this point when speaking of treatment.

Whatever may be, however, its local manifestations, whatever may be its general forms, diphtheria is, in its nature, a unity; whether it affects the mucous membranes or the skin; whether it is pharyngeal, laryngeal, or bronchial angina; whether it is stomatitis or membranous coryza; whether it is cutaneous, vulvar, anal, or preputial diphtheria, it is always the same disease. The diversity of forms which these local affections may present depends simply upon the diversity of the tissues on which diphtheria manifests its action; but these different manifestations are the effects of one and the same cause. The fact is indisputable, when we see in epidemics diphtheria affecting localities so diverse and transmitted from person to person under different varieties of local affections; when we see, for example, a patient affected by gingival diphtheria, communicating to others either pseudo-membranous angina, or croup, or cutaneous diphtheria, or any other sort of pellicular affection; or according to the instance cited by Dr. Guersant, when we see diphtheria of the prepuce in a child becoming the starting-point of pseudo-membranous angina in the brother and father.

When we consider how great are the points of difference which appear between the diverse forms of diphtheria, it would seem that that which kills by propagation to the respiratory passages, which may be called simple (genuina) diphtheria, and that which destroys by general intoxication, malignant diphtheria, must be very distinct in their nature. Well, gentlemen, under this diversity of forms, as just now in the variety of its local manifestations, we find always the same disease. It is the same with diphtheria as with small-pox, which, whether confluent or discrete, simple or malignant, is always small-pox. The transformations which the disease undergoes, according to the epidemics, depend upon that indescribable something which we have agreed to designate by the name of *epidemic genus;* this diversity

of forms, in the same epidemic, depends upon the natural or acquired predisposition upon the organic constitution of the individuals affected. And the comparison which we have established, from this point of view, between diphtheria and variola, seems to us so much the more apt, because independently of its simple and malignant forms, of which I have spoken to you, the pellicular disease assumes, under certain circumstances, another which would seem to bear the same relation to it, as varioloid does to the small-pox. In certain epidemics, indeed, we have seen individuals seized with angina, which, from their anatomical character, seemed to be either common membranous anginæ, such as herpes of the pharynx produces, or even simple anginæ, although in reality we have had to do with diphtheritic angina, but with diphtheritic angina singularly modified. That which renders our comparison apt in every respect; that which proves the identity in the nature of these various forms, is that each one of them, in its transmission from one person to another, may manifest itself under a peculiar aspect; as, for instance, modified diphtheritic angina may communicate simple or malignant diphtheria in precisely the same way as varioloid is susceptible of communicating confluent or discrete small-pox, and reciprocally. Thus, at the session of the Medical Society of the Hospitals of Paris, on the 25th of August, 1858, my honorable colleague, Mr. Guérard, cited the following facts, which had recently come under his observation in a single family, during a period of about six weeks' time. A child died of laryngeal croup; erythematous angina manifested itself two days after in two young girls, who were attended by M. Gillette. A few days later the father, forty-five years of age, and who was attended by M. Guérard, was seized with angina with false membranes in the pharynx. Finally, two other children were attacked; one with simple angina, the other with membranous angina.

A similar observation has been communicated by Dr. Henry Roger to Dr. Peter, who mentions it in his thesis, (Recherches sur la Diphthérite et le Croup. Paris: 1859.)

Little G., two months old, was seized with membranous angina on the 17th of May; she died during the day of the 22d.

On the evening of the 21st, her mother, twenty-two years old, experienced a feeling of restlessness, accompanied with fever; the existence of angina was manifested, and twenty-four hours afterwards, a whitish point appeared on the right tonsil. The following day, false membranes were apparent on the two tonsils. The submaxillary ganglions were swollen, and the cracks of the breast about the nipple were covered with pellicular concretions. The general and local symptoms increased in gravity the following days, but finally a slow and gradual improvement supervened. The false membranes had completely disappeared by the commencement of June; however, an abscess formed in the right tonsil. The cure was complete on the 11th of June.

The nurse of the little girl, thirty-three years of age, was attacked by severe, but not pseudo-membranous angina. The disease lasted thirteen days, from the 23d of May to the 4th of June.

The father of little G., aged thirty-five, had a simple angina of moderate intensity, which lasted four days, from the 25th to the 29th of June.

The grandfather and grandmother who came daily to see their children, especially the grandmother, who nursed them, were seized with simple and very mild anginæ.

A lady living in the neighborhood, a friend of the family, who came often to see them, was attacked by laryngitis.

The family cook, aged forty and upward, had no symptoms whatever of sore throat.

M. Peter follows these cases with certain reflections, which agree completely with my views

Then, in opposition to these facts, in which the disease follows in respect to severity, a decreasing progression in its transmission from children to adults, the same author reports in his thesis (Paris, 1859,) a series of other facts in which the disease goes forward in inverse progression in passing from adults to a child, and from the latter to a man already advanced in life.

Such is the history of a family, the head of which first attacked, communicated to his wife a membranous angina from which she recovered. Six days after, their child, aged twenty-six months, was attacked with pharyngeal diphtheria; then on the twelfth day the larynx was invaded, and on the following day, when M. Gillette did me the honor of calling me in consultation, croup was firmly seated. In the evening M. Peter performed tracheotomy; it did not prevent death, which occurred the fourth day after.

It was from this child on whom he faithfully attended that our lamented confrère, Gillette, caught the diphtheria and croup to which he succumbed without any attempt at tracheotomy being made, the false membranes having invaded the bronchii.

Diphtheria is therefore peculiarly a specific disease, whose different modes of local and general manifestations, forming merely varieties of the same species, must be referred to the action of a single morbific principle, a special virus; it is, in a word, a pestilential disease. Like all peculiarly specific diseases, it is contagious, and perhaps it is inoculable. As to this latter point, the rare examples which have been reported to prove the inoculability of diphtheria, and especially those communicated to the Medical Society of the Hospitals by M. Bergeron, these examples, I say, are susceptible of discussion, and the experiments made to establish a vigorous demonstration of the facts have remained fruitless. I do not speak of the experiments made on animals, for we know that in respect to inoculability, we cannot conclude from animals as to the effect on men; I speak only of experiments made from man to man.

I attempted, in 1828, to inoculate myself with the disease by puncturing the left arm, the tonsils, and the veil of the palate with a lancet smeared with a false membrane which I had just taken from a diphtheritic sore, and I did not give myself diphtheria. In the excellent memoir which I have already several times cited to you, M. Peter re-

lates that full three times he practiced on himself the same experiment. In the first case, when performing tracheotomy upon a child, he received on the cornea of the left eye a semi-liquid, pseudo-membranous production, which covered for an instant the globe of the eye, and the more liquid portion of which passed under the eyelids; he did not wash the eye thus affected, and yet no accident whatever resulted therefrom. In the second instance, he made three punctures in his lower lip, with a lancet dipped in a semi liquid diphtheritic exudation, and experienced from it no derangement whatever in his health. Finally, a third time, this bold experimenter rubbed over his tonsils, the pillars of the veil of his palate, the posterior part of the pharynx, a brush of lint filled with diphtheritic matter, and this time, also, the result was negative. It may be, therefore, gentlemen, according to these experiments, that diphtheria is no more inoculable than are measles, scarlatina, whooping-cough; diseases whose contagious properties, however, no one denies.

As to the *contagion* of diphtheria, if for an instant it can be denied, if for one moment we forget the observations of our predecessors, those of Rosen among others, and a very long time before him those of Cortesius, of Wedel, etc., no one can at this day dispute it. In his *Traité de la Diphthérite*, M. Bretonneau called attention to this point, and he reverted to it still more particularly in his last work published in the *Archives* for the year 1855. The facts are multiplied on every side in the history of epidemics. Sometimes it is not always easy to grasp the mode of transmission of the disease from one locality to another. In some circumstances, however, we can trace it directly to its origin, as in the following case, whose authenticity cannot be doubted. The epidemic of diphtheria which raged in 1858 at Fresnay-le-Ravier, in the arrondissement of Nevers, started with a child who was brought from Paris. This child succumbed, and the child of the nurse to whom it communicated the disease also died; from thence the scourge attacked the village.

Once admitted into a dwelling, the tendency of diphtheria to propagate itself by contact from individual to individual is incontestable. How many times have we seen almost all the children of a family successively attacked, and the father and the mother, or the assistants who attended upon the patients, subjected in some degree to the influence of the disease. I have cited examples of this, and you know, gentlemen, that physicians have largely paid their tribute to the contagion of this frightful disease. I have spoken to you of Valleix, of Henry Blache, of Gillette, and without doubt to this list, already too long, we could add other names.

This question of the contagion of diphtheria is therefore now generally answered in the affirmative. Latterly, it has been placed on the list of subjects for discussion before the Society of the Hospitals, and has secured to us an excellent communication from Dr. Henry Roger, the purpose of which was to establish by a series of authentic and rigorous observations, not only the contagious properties of the disease, but also the duration of the period of incubation of the diphtheritic poison.

From this communication, it appeared that the duration of the period of incubation was most generally from two to seven days; you will understand, however, according to what you know of the non-inoculability of diphtheria, that these figures can only be merely approximative.

I have told you, gentlemen, that diphtheria in its malignant form destroys after the manner of the septic diseases, by a sort of general and profound intoxication of the human economy. This intoxication manifests itself during life by the general and local symptoms which I have described to you; it betrays itself, also, by a particular alteration of the blood, which is discovered on the autopsy; it betrays itself by an affection which is met with in a great number of septic diseases—small-pox, scarlatina, dothin-enteritis, cholera—I mean albuminuria; it betrays itself, finally, by nervous paralytic accidents, accidents of the deepest interest, and to which I shall devote an entire lecture.

The alteration of the blood, to which I call your attention to-day, was pointed out for the first time by one of our young confrères, Dr. A. Millard, in his excellent inaugural thesis *upon tracheotomy in croup*, (Paris, 1858;) it has since been spoken of in the memoir of M. Peter, (1859.) Out of six autopsies of persons who died of croup complicated with membranous coryza, an accident which I have named as one of the manifestations of malignant diphtheria, M. Millard in five instances met with this alteration of blood, of which, up to that time, no one had made mention. I would also add, in accordance with the remark of the author, that in the fifth case, the observation was too incomplete to allow a negative conclusion to be drawn from it. This alteration consists in a coloring of this liquid very different from the normal color; in place of being red, more or less deep, it is brown, and M. Millard compares this color to that of plum-juice, or liquorice-juice; it stains the fingers, he says, almost as sepia does. M. Peter compares this coloration of the blood to that of water in which soot had been dissolved. The viscera and the mucous membranes, which are impregnated with it, present a characteristic dirty tint. This blood is thick, and slightly muddy; the clots which it forms are soft, and offer a sort of resemblance to grape preserves too much cooked. The arteries, in place of being empty, as they habitually are after death, contain almost as much blood as the veins.

I now come to *albuminuria*. Gentlemen, several years since, an English physician, Dr. Wade, of Birmingham, announced that he had detected the presence of albumen in the urine of individuals attacked with diphtheria; he announced it as a frequent and incontestable phenomenon in mortal cases; supporting his own experience with that of his confrères, he reported that the same fact had been observed by several physicians, and he cited Dr. James, who, in the *Medical Times*, had published the interesting account of an epidemic of croup. Dr. Wade added, that having communicated the result of his observations to the Medico-Chirurgical Society of Queen's College, confirmatory observations had been immediately brought forward by Dr. Robins, and also by others. This discovery, at first made public in a pe-

riodical publication of small circulation on this side of the Channel, (*The Midland Quarterly Journal of Medical Science,*) remained a long time unknown in France. I was ignorant of it, as every one else, when there fell into my hands an unpublished paper of Dr. Abeille, who first, to my knowledge, mentions diphtheria among the diseases in which albumen might be met with. From that time I let slip no opportunity of looking for the phenomenon; I detected it in several patients in the very wards of the clinic, and I did not fail to point it out to you in my lectures, after the year 1857. At the session of June 23, 1858, Dr. See, who was ignorant of the labors of the English physician, and who could not know anything of that of Dr. Abeille, called general attention still more particularly to the frequency of albuminuria in malignant angina and in croup, before as well as after tracheotomy; he reported that at the Children's Hospital the urine of all the patients attacked by diphtheria was submitted, with this purpose in view, to an examination each day, and that in a third at least of the individuals albumen was found in noteworthy quantities. As was asserted by Dr. Wade, this is indeed an accident of very great frequency, and in several instances I have placed it in your power to verify it. The interpretation of it has been sought for in various ways. According to some the cause is complex, and the presence of albumen in the blood depends, in some cases, upon a passive and temporary congestion of the kidneys produced by asphyxia in croup, and upon the sanguineous stagnation which results from it This theory is very much open to objection, even in respect to the exceptional cases, to which it is pretended to be applied. In our view, as indeed according to the views of the generality of physicians, albuminuria, in diphtheria, is connected with the general condition of the human economy; and we find also here, what we remark in the septic diseases, such as small-pox, scarlatina, dothin-enteritis, etc., without, up to this time, having been able to give the reason for the fact. In certain cases, albumen appears in the urine from the very commencement of the disease; the quantity which the reaction provoked by nitric acid and by heat make manifest, varies considerably, in the same individual, from day to day, and sometimes its appearance assumes an intermittent form, ceasing for a greater or less period, only to reappear again. You remember, gentlemen, that such was the case with that young woman in the bed No. 9, in our ward Saint Bernard, whose case I will relate to you when we come to speak of diphtheritic paralysis; you remember that the variations in the quantity of albumen which we found in examining the urine of the patient did not at all coincide, during the course of these paralytic accidents, with their increase or decrease, and that we sought in vain to base a prognosis upon what took place in the test-tube. In fine, however interesting may be the phenomenon, it is not at present possible to draw from it an absolute induction.

If it is proper to say, in a general way, that albuminuria is habitually met with in diphtheria, in severe cases, there are, however, very numerous exceptions to this rule. On the one hand, albuminuria is

observed in mild cases; and on the other, it fails to appear in the most serious cases. It is also pretended to explain by it the phenomena of paralysis, of which I shall presently have occasion to speak to you; but as I shall tell you on this point, in these cases also, on the one hand we have seen albuminuria sometimes wanting; on the other hand, we could not compare these paralytic phenomena with the nervous accidents which supervene in the case of acute or chronic attacks of albuminuria, since the nervous accidents are characterized by convulsive or comatose phenomena, and because, with the exception of amaurosis, paralysis has never been remarked in these cases. One word more upon this subject. While Dr. Wade says that he has never seen dropsies accompanying diphtheritic albuminuria, these dropsies, according to M. See, may sometimes be met with, much more rarely, it is true, he adds, than in scarlatina. As for myself, I have observed but a few examples of it, and so far as I may trust to my memory, I think I can affirm that this anasarca is not apparent in a twentieth part of the cases. Our conclusions are, that the existence of albumen in the urine of persons attacked by diphtheria, whatever may be its form, whatever its manifestation, membranous angina, croup, cutaneous diphtheria, etc., is a frequent accident, but one which, in the actual state of our knowledge, can only have a limited signification as regards prognosis and treatment. It cannot be denied, however, that it is the expression of the great perturbation occasioned in the organism by the morbid principle which engenders diphtheria.

EDITORIAL AND MISCELLANEOUS.

—Public health is public wealth. This short aphorism has, with the advance of sanitary science, acquired a meaning which political economists of the last century hardly dreamed of. But the preservation of the public health in time of peace is not more important to the State than is the sanitary condition of its armies in time of war. The health of an army is the strength thereof. A recognition of this fact by the Federal Government is apparent in the appointment of a Sanitary Commission, whose duty it shall be to establish a proper surveillance over the troops in camp and in the field, to adopt such measures as will place them in the best condition to resist the influences which affect their health, to see that their food, clothing, &c., are proper and sufficient, and that nothing shall be present to weaken the efficiency of the force from causes affecting the health of our soldiers.

The effects of a Southern climate upon the Northern constitution is a subject which will particularly attract the attention of this Commission. Whatever these effects may be, they can be mitigated in a great measure by the acts of this Commission, the concerted aid of the

medical officer of the corps, and the intelligent understanding of the subject by the soldier himself.

Comparing the Northern soldier with the Southern, we believe the former will withstand the effects of the climate for a short campaign of a year or more better than the latter; and though the popular belief is divergent to this view, the statistics of our war with Mexico fully sustain it, and the published opinion of no less an authority than Dr. Nott, of Mobile, in the *Southern Journ. of Med. and Pharmacy* for January, 1847, confirms it.

The statistics of the Mexican War are so remarkable, that we present them as we find them, given in a recent number of the *Evening Post:*

On April 8th, 1848, the Secretary of War made a report to the United States Senate of the losses of the volunteer forces employed in Mexico. From this, it appears that seven Northern States—Massachusetts, New York, New Jersey, Pennsylvania, Ohio, Indiana and Illinois—furnished, in the course of that war, 22,573 men. Of this force, the total loss from disease was 2,931 men; less than one-eighth of the whole. Nine slave States—Virginia, North Carolina, South Carolina, Georgia, Alabama, Mississippi, Louisiana, Tennessee and Kentucky—furnished 22,899 men. The loss from this force by disease, and death caused by disease, was 4,315, or more than one-fifth; a very considerable difference in favor of Northern troops.

When we go into particulars, we find that Massachusetts lost, of 1,047 men, but 61 by disease; while South Carolina, furnishing 1,054 men, or seven more than Massachusetts, lost not less than 338 by disease. Mississippi lost 769 men by disease, out of 2,319; while Indiana, furnishing nearly double the number, namely, 4,470, lost only 768. Georgia lost 362 men by disease, out of 2,047, while New York lost but 188 of a total of 2,665. North Carolina sent 936, and lost 233; while New Jersey sent 424, and lost but 12. Pennsylvania sent 2,464, and lost 411; Mississippi lost 769 out of 2,319. Illinois furnished 5,973 men, and lost 850; while Tennessee furnished only 5,090, but lost not less than 1,065; Alabama lost 323 of a force of 3,011; Arkansas 136 of a force of 1,323; rather more than ten per cent. in each. Kentucky lost 709 out of 4,800; but Ohio, sending 5,530, lost but 641. The Texan troops, fighting in a country to whose circumstances and climate they were thoroughly accustomed, lost yet more by disease than the Missourians, who came there from the cold North. Of 7,313 men, Texas lost 360 by disease; while of 6,733 Missourians, only 342 were thus lost.

— Dr. Simplice, whose *spirituelle causeries* in the *Union Médicale* we have frequently had occasion to quote from, gives a touching account of the sad condition of the physician in Paris relative to professional expenses and receipts. The former increase yearly, particularly as regards house-rent, while the fees of the medical man do not grow in a corresponding ratio. How naively and pleasantly the Dr. puts disagreeable and plain facts! The life of the physician at Paris, says he, is not always one of pleasure. I know it too well, and observe it every day. One of the greatest cares is certainly on account of a place of abode. The profession in regard to this subject is placed in a most ruinous state, and the expense is so great that I do not understand how the physician can possibly exist. I do not know, my dear editor, if you have remarked it, but physicians in Paris appear to me to be generally and sensibly growing thin. I claim priority in the discovery of this fact; I could guarantee it by a sealed letter addressed to the Academy, but I prefer to assure it by the publicity in the *Union Médicale*.

The fact is, the physicians grow thin; the cause—they do not eat as much as they should, and they are obliged to eat less because the rent has reached such a sum that they are obliged to retrench upon the larder.

Twenty years ago, physicians who payed 2,000 francs a year for rent, were rare; to-day, it is rarer still to find a physician who does not reach or even surpass that sum. The mean sum paid by physicians for rent, in Paris, at this time, is between 2,000 and 3,000 francs a year.

But from data which I have collected, I am able to state, that the mean professional revenue of Paris does not exceed 6,000 francs a year.

When, then, the mean of the receipts does not exceed 6,000 francs, and the mean of one single expense is equal to 2,000 to 3,000 francs, how is it possible that physicians should not grow thin?

— Secession with our friends at the South has been carried into every department of life, and every branch of science and art. The American Medical Association has not escaped their consideration, but they must denounce union with Northern medical men, even on the platform of our profession. How their vagaries look abroad we learn from a *feuilleton* of the *Union Médicale*, just received.

The universal unity of our profession, not a national union simply, is the direction which the various associations of all countries are

tending to, and the writer in the French journal quoted says an attempt to destroy this unity has been made.

"It is in America," he writes, "and remark it well, in that re-Union of fresh date, and founded upon slavery, of seven insurgent States of the South, that this crime of *lèse*-union has been premeditated and actually put in execution. Thus resemble and are intertwined by an inevitable consequence the acts of nations and individuals. One separation brings on another, and whoever, sacrificing the interests of family to his selfishness, abandons his mother, then his brothers, will finally end by abandoning his own children. The editor of the *Atlanta Medical and Surgical Journal* has been led thus to preach, thus to provoke the disunion of the American Medical Association. Inspired with the secession already undertaken, he desires that the physicians of the seven rebellious States should break the general association which united them to their brethren of the great Republic; just as if medicine was a solidarity with politics, and should partake the destinies of it. 'As long as it pleased us to remain slaves,' says he, 'we have borne the yoke without saying a word; now that it weighs upon us, we wish to be free from it.' Strange aberration of a mind in revolt! To treat as slavery the mild and benevolent association, and wish to break with it in the name even of the principal which consecrates and imposes so hard a slavery—does not that severely condemn it?"

— *The Medical Department of the University of Buffalo* makes its announcement for the coming Course of Lectures in the present number of the MONTHLY. This institution is in a flourishing condition, and possesses all the advantages which an active Faculty and the resources of a large city afford. Its last Graduating Class numbered thirty; the whole number of students in attendance being eighty. Since the last session, Dr. William H. Mason has been appointed to the Chair of Physiology and Microscopic Anatomy. Dr. Mason is now in Paris, but will return in season for the lectures, which commence in November next.

New York Medical College and Charity Hospital, 90 East Thirteenth Street, New York.—The Fall Course of Lectures in this Institution will commence on Monday, September 16th, and continue until the 15th of October, when the regular Winter Course will begin.

For further information, apply to or address Prof. B. I. Raphael, Acting Dean, 124 Ninth Street.

New York Medical College and Charity Hospital.—The Chairs of Theory and Practice of Medicine, Anatomy, and Chemistry having become vacant by death and resignations, all applications for these Chairs must be addressed to Prof. B. I. Raphael, Acting Dean, 124 Ninth Street.

Cellules of Pus in the Atmosphere.

By Dr. THEOPHILE EISELT, of Prague.

An important discovery, in the domain opened up by the Bréant prize—the investigation of contagious miasms in the air—has just been made by the author. In the large Institution for Foundlings at Repy, near Prague, during the last autumn and winter, there were, amongst 250 children from 6 to 10 years of age, 92 cases of blenorrhœa of the conjunctiva. This epidemic ophthalmia convinced Dr. Eiselt that the contagion could be communicated in some other way than by contact. He took care, and enjoined the same on the nurses, not to touch the eyes of the affected children, but, despite these excessive precautions, the doctor and the nurses were all attacked with the same affection. The idea occurred to Dr. Eiselt of examining the air of a hall containing a large number of patients, by means of the aeroscope of Pouchet, as modified by Prof. Purkynje, of Prague; as soon as the air entered the apparatus he saw distinctly small cellules of pus, which had certainly answered as the vehicle of the contagion.

Appreciating the importance of this discovery, several members of the Imperial Society of Physicians at Vienna have united in the common investigation of this statement. COSMOS.

We must state our incredulity as regards the character of the cellules seen by Eiselt. The atmosphere, we are aware, is a perfect armory of much that is hurtful to health and life; and much that is valuable, as regards the doctrine of contagion, might be obtained, if the constituents of this armory were examined; still, there is too much of sound pathology controverted by the supposition of the existence of pus-cells in the air, with the power of engendering their like when brought into contact with mucous membranes directly, or when carried into the blood by inhalation. But we can wait for the Viennese experimenters. *Nous verrons.* EDITOR.

Touching Lint.—Liebig, in one of his delightful letters on chemistry, affirms that the quantity of soap consumed by a nation would be no inaccurate measure whereby to estimate its wealth and civilization. From the consumption of lint we may, with the same certainty, deduce important conclusions respecting the magnitude and severity of a nation's battles. In a letter which appears in another part

of this journal, the effect of the American conflict on the trade in lint is touched upon, and some interesting details respecting the various kinds of lint now in the market are given. As the war fever is raging at the present time, and as the demand for lint daily increases, I take the opportunity for saying a few words about this important product.

Lint was formerly prepared from old linen rags by a process which I shall presently describe. The machine-made lint now generally used invariably contains a portion of cotton; and the variety known as cotton-lint—the term is an etymological contradiction—is formed exclusively of this fibre. Flax, which consists of woody fibre, is procured from the inner bark of the stalk of *Linum usitatissimum*, by the process of steeping and stripping off the bark. Under the microscope the fibres are readily distinguished from cotton, being round and attenuated to a point at each end. Cotton is composed of the hairs surrounding the seeds of various species of *Gossypium*. These hairs when dry exhibit under the microscope a peculiar twisted appearance. The quality of cotton depends on the length, strength, and firmness of the tissue, or, as it is called, the *staple*. For the preparation of lint, long-stapled cotton at about 10*d*. the pound is required.

Flax lint is more cooling to a wound than that made from cotton, as it conducts heat more readily. For the same reason a linen shirt is cooler than a calico one. Flax lint has other points of superiority; it is much softer in fibre than the cotton fabric, and its absorbing power is greater. For many purposes, however, cotton-lint may be profitably substituted for the more costly product. Although it is not liked by the surgical profession, most pharmacists use it in unimportant cases. For wrapping round dental instruments and similar purposes, it is nowise inferior to the best flax lint.

Lint made from linen rags is now seldom seen, though many eminent practitioners prefer it to that made by steam-worked machinery. Six years ago the scraped-linen lint was in general use, and a sad outcry was raised against the patent fabric which had then been but recently introduced. The wholesale lint manufacturer of that day looked to the Jews for a supply of linen rags applicable to his purposes. For these rags he generally paid an exorbitant price. To prepare them for the operative lint-maker, who was invariably a female, the seams had to be cut out, and the ragged and threadbare portions removed. The average loss in weight from this operation amounted to nearly twelve per cent. upon ordinary rags, and to about half that on old sheeting and linen of an analogous description. The rags were then washed thoroughly clean, and cut to the width of the linting machine. Before describing the process of linting, I must call attention to the peculiar structure of the article which it produced. If the reader will take a piece of the old-fashioned lint in his hand, he will find, on endeavoring to pull it to pieces, that he can do so with the utmost ease in one direction, but not in another. On examining it in a strong light, he will see the reason of this. All the threads which run in one direction are but very slightly frayed or scraped, and remain nearly as strong as when they came from the loom; but the threads which run cross-wise are reduced to hairs of infinites-

imal thinness—though none are cut through—the rest of their substance being raised into a soft "fluff," which constitutes the lint. The process by which this result was attained has been thus described by a writer in *Chambers' Journal*, to whom we are indebted for several of the preceding facts:

"On visiting the lint-maker at her work, we find her seated in a lofty attic of a dingy house in a back street not far from the bank of the Thames, where the river runs towards Lime-house. In order to get at her apartment, we have to pass through a series of hanging gardens of damp rags, for the most part less than a foot square in size, and which, having been washed clean, are hung out to dry upon the staircase and landing, the weather being 'mizzly' out of doors. From such a manifold demonstration, we conclude that the lint-maker we have come to visit, by introduction of a friend who employs her, if she works for the middleman, works also on her own account, and cultivates a connection. On entering the room, we find her seated in front of the linting-machine, a rude and primitive instrument, about the size of the stool of a banker's clerk, and not a whit more ingenious in its construction. The affair is just the shabbiest of all shabby contrivances for bringing the edge of a sharp blade, about fifteen inches in width, to bear upon a little platform beneath. There is a kind of treadle worked by the foot, which assists the hands of the manipulator in using the knife. Upon the flat surface of the little platform is stretched the rag, or that portion of it undergoing the operation which has to be linted. A simple contrivance keeps the rag partially strained. As the knife hangs in its frame over the cloth, its edge is parallel with one line of the threads, and, of course, perpendicular to the other line. Several of these machines are at work in the room, and the blades are rising and falling with a dull, thumping, scraping sound continually. As the blade descends, it cannot much injure the threads whose course is parallel with itself, for obvious reasons; but it would, being very sharp, cut through the others were it allowed to descend with sufficient force. The force of the descent, however, is regulated by the dexterity of the worker, so that it shall only partly sever the cross-threads; and at every fall, while the knife is down, and its edge imbedded in the partly severed threads, the blade is forcibly shifted in the direction of those threads for a certain small space. It is this horizontal shifting of the sharp and heavy blade of the knife upon the strained rag while it is half cut though, which, by disintegrating those threads that cross the blade at the right angle, and raising nine-tenths or more of their entire substance into a soft woolly pile, produces the lint. It is worthy of remark, that the threads which, lying horizontally with the knife, escape serious injury by the process, render an important service by preventing the disintegrated pile from being detached from the surface of the rag by the violent passage of the blade."

The preparation of lint by steam power has been made the subject of several patents since the above description was written. A suitable fabric is now woven expressly for the lint manufacturer in lengths of 100 yards. This forms the raw material, and takes the place of

linen rags. Having been imperfectly bleached, it is sent to the lint-maker, who completes the bleaching, and extracts impurities consisting chiefly of lime and the bleaching agents left in the texture. The cloth is then stoved and wound on rollers ready for the linting process. In the best machines, the pile or nap is raised upon the cloth by knives making upward of 500 strokes a minute. The motion of these knives or scrapers is rotary in some machines and vertical in others. The latter motion is stated to be practically the best, as the knives moving vertically beat and soften the cloth upon which they raise the pile. A good machine will produce about eighteen yards or two pounds of lint per hour. The fabric after leaving the machine is passed through the calender and mechanically divided into pounds. It is then rolled and labeled ready for use.

After having compared several specimens of the new lint with the almost obsolete rag lints, I am at a loss to account for the prejudice which still exists against the former. The machine-made lints possess all the valuable qualities of the older products, are much cheaper, and are sold in regular pieces, which can be cut up without waste. There are certain people who invariably cavil at all improvements, which they scornfully term "new-fangled notions;" and I cannot help thinking that the objections which have been raised against the machine-made lints proceed from some of these lovers of the past.—*Chemist and Druggist, May* 15, 1861.—*Journ. of Pharmacy.*

The Uterine Douche in Galactorrhœa.—After adverting to the well-known examples of the induction of uterine contraction in consequence of excitement of the mammary nerves, Dr. Abegg, of Danzig, calls attention to other cases exhibiting the influence which stimulation of the uterine nerves may exert on those of the breast. In one, in which the infant had to be removed from the breast, and in which none of the ordinary means sufficed to check the excessive secretion of milk, this continuing to inundate the woman for weeks, a tepid uterine douche was employed during a quarter of an hour. Slight bleeding from the uterus ensued, and lasted for a fortnight; and during this time the secretion of milk gradually diminished, the breast decreasing in size proportionally. Menstruation soon afterwards returned, and the woman's health, by the aid of iron, was completely restored. Another case occurred to the author in the person of a primipara, who was prevented suckling her child on account of sore nipples. The secretion of milk continued in excessive quantity during ten weeks after delivery, the woman otherwise being very well. The tepid douche was applied during a week—once a day for the four first, and three times a day for the last three days; bleeding followed the last application. The secretion of milk gradually diminished, and regular menstruation was established.—*Monatsschrift für Geburtskünde*, vol. xvi., p. 425.—*Med. Times and Gazette.*

Subnitrate of Bismuth as an Injection in Acute Gonorrhœa.—Dr. Mouslon, a French Military Surgeon, as the result of numerous trials, confirms the good account given by M. Caby of the efficacy of this treatment. He mixes twenty parts of well-washed bismuth—if not

well washed the acid which remains may give rise to irritation—in 200 parts of distilled water, causing as much to be taken up as possible. Some of this is thrown into and retained for ten minutes in the urethra, a local emollient bath being first employed In only the severest cases is the patient obliged to maintain absolute rest for four or five days, after which he is enabled to return to his ordinary habits and diet. The cure, indeed, takes place more quickly under the use of this agent than that of any other. In chronic gonorrhœa success is less marked, and astringent injections may afterwards be required; while in confirmed and obstinate gleet, occurring in a broken constitution, the bismuth is of no use. M. Mouslon appends to his communication an account of a mode of treating painful chordee which he has found very successful. It consists in desiring the patient to sleep on the belly, having first fixed the penis by means of a piece of linen in the fold of the left or right groin.—*Recueil de Mém. de Méd. Milit.*, tome iii., p. 52.—*Med. Times and Gazette.*

On the Application of the Solution of Chloride of Lime to Ulcerated Surfaces.—M. Hervieux, as the result of observations in a wide field of practice, strongly recommends the suppression of suppuration in serious wounds, by means of the constant application of sponge which has been dipped in a solution of chloride of lime, in the proportion of one part to six or ten of water, according to the case. The sponge should be remoistened several times a day. He thus concludes:

1. The permanent application of a sponge imbibed in chlorined water to the surface of severe wounds, transforms them into fresh, vermilion-colored wounds, exempt from fungosities, and from all traces of suppuration. 2. It favors the cicatricial process, which is never more regular, solid, and satisfactory, as when suppuration is completely absent. 3. Among all the disinfectants which have been employed as dressings for suppurating wounds, none is so efficacious as the sponge imbibed with chlorine, since it suppresses the source of fœtidity, viz., suppuration and its products. 4. With the exception of cases in which ulcers are kept up by affection of bone, this application gives rise to no erythema or other irritation of the surrounding surfaces. 5. It is in the treatment of phagadænic gangrene, eschars following bad fever, eczematous or scrofulous ulcers, unconnected with diseased bone, hospital gangrene, laceration of the perineum, and, in general, in all suppurating wounds of a bad character, that this procedure will be found of pre-eminent utility.—*Union Méd.*, 1860, Nos. 127–8–9.

Deglutition as a Sign of Life in Infants who have not Respired.—Dr. Houzé d'Aulnot, consulted concerning a case in which an infant was found dead in a privy, and whose lungs sank on the application of the hydrostatic test, a portion of fæcal matter being found in the stomach, instituted various experiments in elucidation of the subject, in order to prove whether the child was living or not when it was dropped into the privy. From these, it results, in his opinion, that the presence of any foreign body, whether solid or fluid, in the digestive tube of a new-born infant, is a proof that deglutition has taken place; and deglutition being a vital process, life existed at the time of its occurrence.—*Moniteur des Sciences Méd.*, 1860, No. cxiv.